Contract Plans

For Construction of:

SR 305

EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

KITSAP COUNTY

A STATE PROJECT

Washington State Department of Transportation

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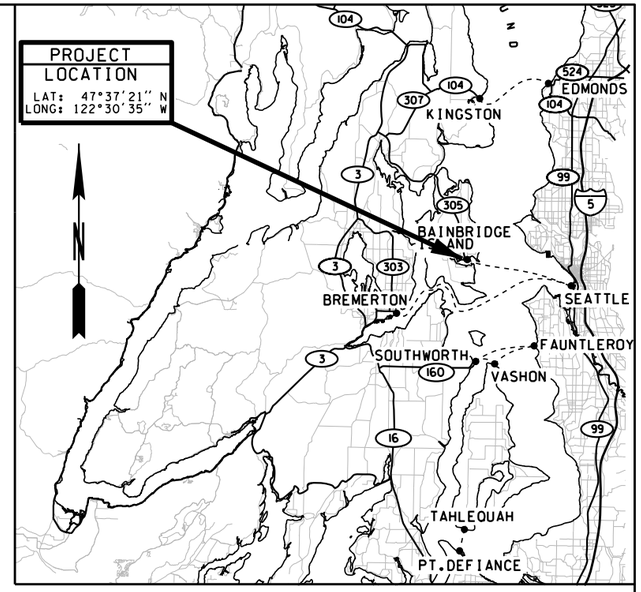

SHEET INDEX

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FILE NAME: PW: WSF/Eagle Harbor/17w062SlipFtoDriveOn/PE/PE_PD/CAD/_Contract_Plans/100%\17w062g01_00.dlv						
PRINTED: 9:26:57 AM 1/18/2022	LAST PRINTED BY:				FED.AID PROJ.NO.	
SUBMITTAL DATE: 1/11/22	morin					
DESIGNED BY: T. CASTOR	1/18/2022				*-WA-***	
ENTERED BY: M. MORIN	1/18/2022				REGION NO. 10 / STATE WASH	
CHECKED BY: B. ENDRES	1/18/2022					
MAR PROJ ENGR: T. CASTOR	1/18/2022				JOB NUMBER 17W062	
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY	CONTRACT NO. 00****	

SEE CT01.00

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

SHEET INDEX AND VICNITY MAP

G01.00

SHEET 2 OF 124 SHEETS

PARCEL NO.	NAME	TOTAL AREA	R/W	LT.	REMAINDER	RT.	EASM'T.
3-07909	STATE OF WASHINGTON (D.N.R.)	UNKNOWN	25.46 AC.				
3-07122	WILLIAMSON	0.99 Ac.					**6008 S.F.
3-06327	TRASK	6.04 Ac.	⊖ 6.04 Ac.				
3-06303	EAGLE HARBOR CONDO. ASSN.	4.22 Ac.					*560 S.F. *580 S.F.
3-06270	STATE OF WASH. (D.N.R.)	UNKNOWN	6.74 Ac.				

OWNERSHIPS

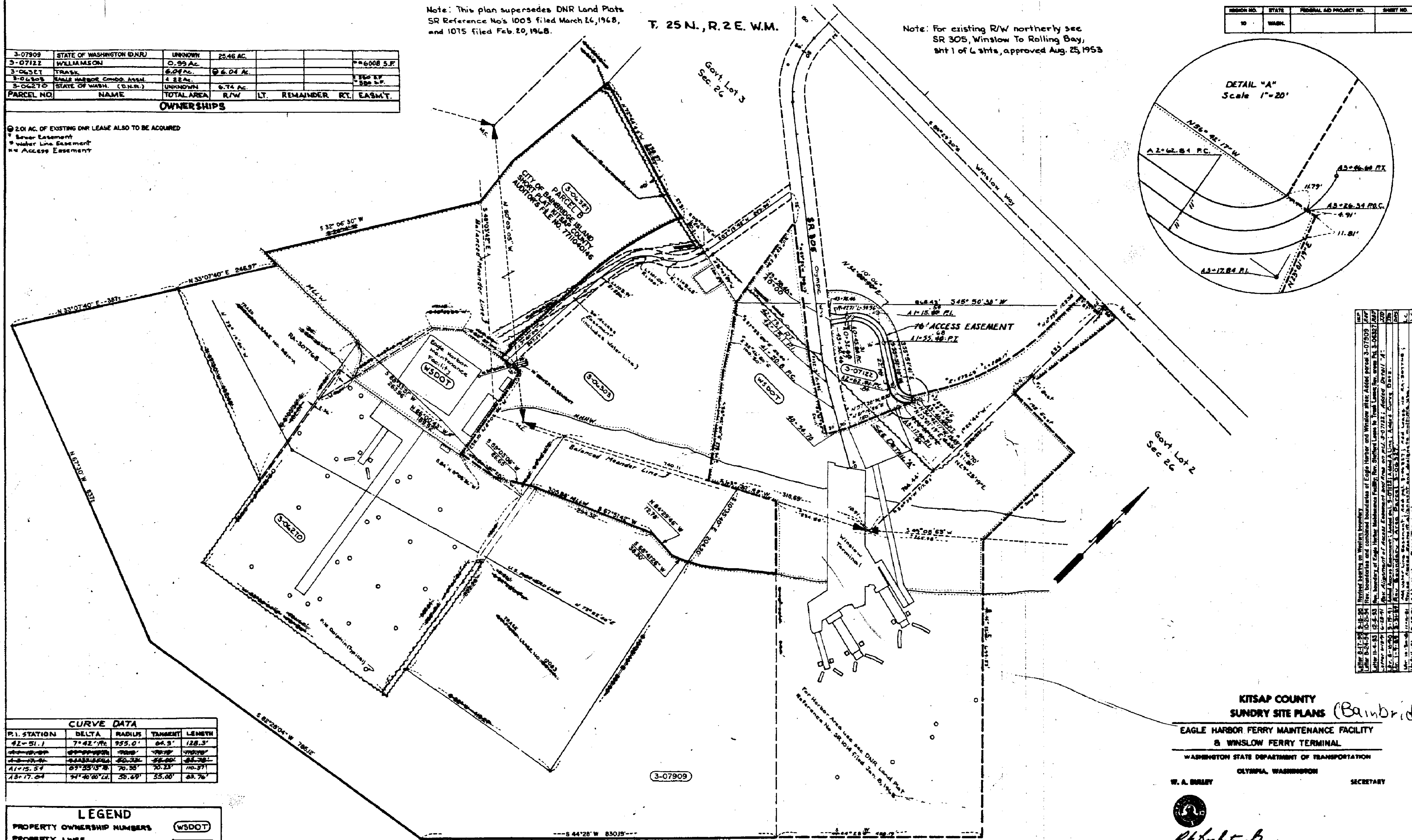
⊖ 2.01 AC. OF EXISTING DNR LEASE ALSO TO BE ACQUIRED
* Sewer Easement
* Water Line Easement
** Access Easement

Note: This plan supersedes DNR Land Plats SR Reference No's 1003 filed March 26, 1968, and 1075 filed Feb. 20, 1968.

T. 25 N., R. 2 E. W.M.

Note: For existing R/W northerly see SR 305, Winslow To Rolling Bay, sht 1 of 6 shts, approved Aug. 25, 1953

REGION NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.
10	WASH.		



Letter 8-17-90	9-18-90	Revised bearing on Western boundary	HKP
Letter 8-24-94	10-21-94	Rev. boundaries and combined boundaries of Eagle Harbor and Winslow sites; Added parcel 3-07909	[illegible]
Letter 11-4-93	12-6-93	Rev. boundary of Eagle Harbor Maintenance Facility; Rev. Stafford Lease to Trask Lease; Rev. area Pcl. 3-06327	[illegible]
Letter 6-18-91	6-28-91	Rev. Alignment of Access Easement and Area on pcl. 3-07122; Added Detail "A".	JTD
Ltr. 8-16-90	3-19-91	Added Access Easement; Added pcl. 3-07122; Added A Line; Added Curve Data.	JTD
Ltr. 1-8-93	3-31-93	Rev. Boundary & Area Parcel 3-06327	DMS
Ltr. 10-30-81	[illegible]	Add water line easement; Add pcl. 3-06303; Add lease No. RA-30776; Revise access easement alignment and designate multiple use	L.C.
Ltr. 9-11-81	9-15-81	Add Winslow Ferry Terminal	L.C.
Ltr. 4-1-81	4-21-81	Added square area Stafford lease to [illegible] boundary [illegible] Revised [illegible] from DNR	L.C.
AUTHORITY	DATE	SUBSEQUENT APPROVAL	BY

CURVE DATA

P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH
42+51.1	7°42' Rt.	955.0'	64.3'	128.3'
~~A1+15.89~~	~~[illegible]~~	~~70.18'~~	~~70.18'~~	~~110.10'~~
~~A3+17.84~~	~~[illegible]~~	~~50.73'~~	~~55.00'~~	~~83.78'~~
A1+15.54	89°35'15" Rt.	70.35'	70.23'	110.37'
A3+17.84	94°40'00" Lt.	50.69'	55.00'	83.76'

LEGEND

PROPERTY OWNERSHIP NUMBERS (WSDOT)
PROPERTY LINES
SCALE IN FEET 100 0 100 200

KITSAP COUNTY
SUNDRY SITE PLANS (Bainbridg

EAGLE HARBOR FERRY MAINTENANCE FACILITY
& WINSLOW FERRY TERMINAL

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
OLYMPIA, WASHINGTON

W. A. BULLEY SECRETARY

PROJECT DEVELOPMENT ENGINEER APPROVED JANUARY 30, 1981
SHEET 5

FILE NAME:	PW: WSF/Eagle Harbor/17w062SlipFtoDriveOn/PE/PE_PD/CAD/_Contract_Plans/100%17w062g02_00.dlv					
PRINTED:	9:27:01 AM 1/18/2022	LAST PRINTED BY:				FED.AID PROJ.NO.
SUBMITTAL DATE:	1/11/22	morin				*-WA-***
DESIGNED BY:	S. WATSON	1/18/2022				REGION NO. 10 / STATE WASH
ENTERED BY:	M. MORIN	1/18/2022				
CHECKED BY:		1/18/2022				JOB NUMBER 17W062
MAR PROJ ENGR:	T. CASTOR	1/18/2022				
DGN ENGR MNGR:						CONTRACT NO. 00****
ASST SECRETARY:	P. RUBSTELLO		REVISION	DATE	BY	

SEE CT01.00

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

SUNDRY SITE PLAN

G02.00

SHEET 3 OF 124 SHEETS

SUMMARY OF QUANTITIES

DOT_RGG900

5/5/2022

ITEM NO	TOTAL QUANTITY	SUB-TOTAL * SECTION I-07.2(1) OF STANDARD SPECS	SUB-TOTAL ** SECTION I-07.2(2) OF STANDARD SPECS	STD. ITEM NO.	UNIT	ITEM	GROUP 1 CAPITAL FUNDS W1	GROUP 2 MAINT. FUNDS X6	GROUP 3 REIMBURSE FOR THIRD PARTY DAMAGE
						PREPARATION			
1	LUMP SUM		LUMP SUM	0001	L.S.	MOBILIZATION	L.S.	L.S.	
2	LUMP SUM		LUMP SUM	0050	L.S.	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	L.S.		
3	LUMP SUM		LUMP SUM	0940	L.S.	DISPOSAL OF CREOSOTED MATERIAL	L.S.		
						STRUCTURE			
4	12450.00		12450.00	4147	LB.	EPOXY-COATED ST. REINF. BAR	12,450.00		
5	5.10		5.10	4202	C.Y.	CONC. CLASS 4000 FOR DIAPHRAGM	5.10		
6	48.20		48.20	4205	C.Y.	CONC. CLASS 5000 FOR PIERS	48.20		
7	9.00		9.00	8376	EACH	FURNISHING STEEL PILE TIP OR SHOE - 24 IN DIA	9.00		
8	16.00		16.00	8376	EACH	FURNISHING STEEL PILE TIP OR SHOE - 30 IN DIA	16.00		
9	8.00		8.00	8376	EACH	FURNISHING STEEL PILE TIP OR SHOE - 36 IN DIA	8.00		
10	358.00		358.00	8920	L.F.	FURNISHING ST. PILING 24 IN. DIAM. T = 1 IN.	358.00		
11	285.00		285.00	8921	L.F.	FURNISHING ST. PILING 30 IN. DIAM. T = 3/4 IN.	285.00		
12	596.00		596.00	8921	L.F.	FURNISHING ST. PILING 30 IN. DIAM. T = 1 IN.	596.00		
13	308.00		308.00	8925	L.F.	FABRICATING ST. PILING 24 IN. DIAM. T = 1 IN.	308.00		
14	495.00		495.00	8926	L.F.	FABRICATING ST. PILING 30 IN. DIAM. T = 3/4 IN.	495.00		
15	714.00		714.00	8927	L.F.	FABRICATING ST. PILING 36 IN. DIAM. T = 1 IN.	714.00		
16	LUMP SUM		LUMP SUM	1910	L.S.	FURNISH BUBBLE CURTAIN SYSTEM	L.S.		
17	11.00		11.00	1915	EACH	BUBBLE CURTAIN	11.00		
18	9.00		9.00	8930	EACH	DRIVING ST. PILE 24 IN. DIAM.	9.00		
19	16.00		16.00	8931	EACH	DRIVING ST. PILE 30 IN. DIAM.	16.00		
20	2.00		2.00	8932	EACH	DRIVING ST. PILE 36 IN. DIAM. - TOWER PILES	2.00		
21	6.00		6.00	8932	EACH	DRIVING ST. PILE 36 IN. DIAM. - FENDER PILES	6.00		
22	LUMP SUM		LUMP SUM	8939	L.S.	STRUCTURAL STEEL - TRESTLE SPAN	L.S.		
23	LUMP SUM		LUMP SUM	8939	L.S.	STRUCTURAL STEEL - TRANSFER SPAN	L.S.		
24	LUMP SUM		LUMP SUM	8939	L.S.	STRUCTURAL STEEL - WINGWALLS	L.S.		
25	LUMP SUM		LUMP SUM	8939	L.S.	STRUCTURAL STEEL - DOLPHINS	L.S.		
26	LUMP SUM		LUMP SUM	8943	L.S.	CHAIN AND HARDWARE - WINGWALLS	L.S.		
27	LUMP SUM		LUMP SUM	8943	L.S.	CHAIN AND HARDWARE - DOLPHINS	L.S.		
28	6.00		6.00	8975	EACH	MARINE FENDER TYPE 2	6.00		
29	6.00		6.00	8982	EACH	UHMW POLYETHYLENE RUBBING FACE FOR PILES	6.00		
30	6.00		6.00		EACH	TIMBER PILE REPAIR - TRASK AND BUILDING TRESTLE		6.00	
31	33048.00		33048.00		LB.	LEAD BALANCE BLOCKS	33,048.00		
32	LUMP SUM		LUMP SUM		L.S.	RELOCATED FLOATS	L.S.		
						OTHER ITEMS			
33	LUMP SUM		LUMP SUM		L.S.	GENERAL ELECTRICAL SLIP F	L.S.		
34	LUMP SUM		LUMP SUM		L.S.	GENERAL ELECTRICAL SB426 FEEDER REPAIR		L.S.	
35	LUMP SUM		LUMP SUM		L.S.	HOIST SYSTEM	L.S.		
36	LUMP SUM		LUMP SUM		L.S.	COUNTERWEIGHT SYSTEM	L.S.		
37	2000.00		2000.00	7715	DOL	FORCE ACCOUNT REMOVAL OF OBSTRUCTION	2,000.00		
38	5000.00		5000.00	9002	DOL	REIMB. FOR PROTECTED SPECIES MONITORING SUSPENSION	5,000.00		
39	LUMP SUM		LUMP SUM	9003	L.S.	PROTECTED SPECIES MONITORING	L.S.		
40	LUMP SUM		LUMP SUM	1905	L.S.	MARINE SURVEYING	L.S.		
41	20.00		20.00		HR	DERRICK BARGE	20.00		
42	-1.00		-1.00	7728	DOL	MINOR CHANGE	-1.00		
43	LUMP SUM		LUMP SUM	7736	L.S.	SPCC PLAN	L.S.		

GROUP LEGEND

GROUP NUMBER	SR	CONTROL SECTION	TAX SCHEDULE	FUND PARTICIPANTS
1	305	188400	**	STATE
2	305	188400	**	STATE
3	305	188400	**	STATE

DATE	REVISION	BY

REGION	STATE	FEDERAL AID PROJECT. NO.
10	WA	

JOB NUMBER 17W062/1

CONTRACT NO 000000

Washington State Department of Transportation

SR 305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

SUMMARY OF QUANTITIES

SQ1

SHEET 4 OF 124 SHEETS

SUMMARY OF QUANTITIES

ITEM NO	TOTAL QUANTITY	SUB-TOTAL * SECTION I-07.2(1) OF STANDARD SPECS	SUB-TOTAL ** SECTION I-07.2(2) OF STANDARD SPECS	STD. ITEM NO.	UNIT	ITEM	GROUP 1 CAPITAL FUNDS W1	GROUP 2 MAINT. FUNDS X6	GROUP 3 REIMBURSE FOR THIRD PARTY DAMAGE
44	-1.00		-1.00	7732	DOL	AGGREGATE COMPLIANCE PRICE ADJUSTMENT	-1.00		
45	5.00		5.00	7725	DOL	REIMBURSEMENT FOR THIRD PARTY DAMAGE			5.00

GROUP LEGEND

GROUP NUMBER	SR	CONTROL SECTION	TAX SCHEDULE	FUND PARTICIPANTS
1	305	188400	**	STATE
2	305	188400	**	STATE
3	305	188400	**	STATE

DATE	REVISION	BY	REGION	STATE	FEDERAL AID PROJECT. NO.
			10	WA	
			JOB NUMBER 17W062/1		
			CONTRACT NO 000000		

Washington State
Department of Transportation

SR 305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

SUMMARY OF QUANTITIES

SQ2

SHEET 5 OF 124 SHEETS

PROJECT LICENSED PROFESSIONAL CERTIFICATIONS

Tom Castor May 11, 2022 As a Professional Engineer in direct responsible charge of developing this contract, I certiy that all plans that contain my stamp have been developed under my supervision as a licensed professional.	Jeff Kilborn May 11, 2022 As a Professional Engineer in direct responsible charge of developing this contract, I certiy that all plans that contain my stamp have been developed under my supervision as a licensed professional.	Tom Bertucci May 11, 2022 As a Professional Engineer in direct responsible charge of developing this contract, I certiy that all plans that contain my stamp have been developed under my supervision as a licensed professional.	stearnch@wsdot.wa.gov May 11, 2022 As a Professional Engineer in direct responsible charge of developing this contract, I certiy that all plans that contain my stamp have been developed under my supervision as a licensed professional.
John Frisby May 11, 2022 As a Professional Engineer in direct responsible charge of developing this contract, I certiy that all plans that contain my stamp have been developed under my supervision as a licensed professional.	Jan Teves May 12, 2022 As a Professional Engineer in direct responsible charge of developing this contract, I certiy that all plans that contain my stamp have been developed under my supervision as a licensed professional.	Robb Algazi May 13, 2022 As a Professional Engineer in direct responsible charge of developing this contract, I certiy that all plans that contain my stamp have been developed under my supervision as a licensed professional.	Noppadol P Lekhakul May 11, 2022 As a Professional Engineer in direct responsible charge of developing this contract, I certiy that all plans that contain my stamp have been developed under my supervision as a licensed professional.
James Sims May 11, 2022 As a Professional Engineer in direct responsible charge of developing this contract, I certiy that all plans that contain my stamp have been developed under my supervision as a licensed professional.	Antonio Gonzalez Jr May 12, 2022 As a Professional Engineer in direct responsible charge of developing this contract, I certiy that all plans that contain my stamp have been developed under my supervision as a licensed professional.	As a Professional Engineer in direct responsible charge of developing this contract, I certiy that all plans that contain my stamp have been developed under my supervision as a licensed professional.	As a Professional Engineer in direct responsible charge of developing this contract, I certiy that all plans that contain my stamp have been developed under my supervision as a licensed professional.

NOTES:

THIS PLAN SET WAS DEVELOPED ELECTRONICALLY UNDER THE DIRECT SUPERVISION OF THE LICENSED PROFESSIONALS WHO HAVE AFFIXED THEIR SIGNATURE TO THIS PAGE.

THIS SHEET SERVES AS THE CERTIFICATION BY THE ABOVE LICENSED PROFESSIONALS OF ALL SHEETS IN THIS PLAN SET WHERE THEIR STAMPS AND SIGNATURES APPEAR.

FILE NAME: PW: WSF/Eagle Harbor/17w062SlipFtoDriveOn/PE/PE_PD/CAD/_Contract_Plans/100%/17w062CT01_00_CERTIFICATION_SHT.dlv

PRINTED: 9:27:12 AM 1/18/2022	LAST PRINTED BY:					FED.AID PROJ.NO.
SUBMITTAL DATE: 1/11/22	morin					
DESIGNED BY:	1/18/2022					*-WA-***
ENTERED BY: M. MORIN	1/18/2022					REGION NO. 10 / STATE WASH
CHECKED BY:	1/18/2022					JOB NUMBER 17W062
MAR PROJ ENGR: T. CASTOR	1/18/2022					CONTRACT NO. 00****
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

SEE CT01.00

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

CERTIFICATION SHEET

CT01.00

SHEET 6 OF 124 SHEETS

SURVEY MONUMENT INFORMATION

ADDITIONAL INFORMATION ABOUT THE LOCATION OF THE NOTED SURVEY MONUMENTS CAN BE FOUND ONLINE ON THE STATE'S "SURVEY MONUMENT DATABASE" AT THE FOLLOWING ADDRESS:

https://www.wsdot.wa.gov/monument/search.aspx

DESIGNATION	MONUMENT ID#	NORTHING	EASTING	MLLW ELEV
TRAIL	3424	231899.877	1225971.524	25.97
SHOP	8906	231538.930	1225783.733	17.28
CAVE	8905	231804.861	1225836.423	16.97
IS1824	5138	230965.043	1225969.097	16.55
EAGLE *	1460	231680.872	1226468.134	35.31
F 10+00		231143.312	1225802.758	15.03
F 10+50		231096.753	1225784.600	14.99

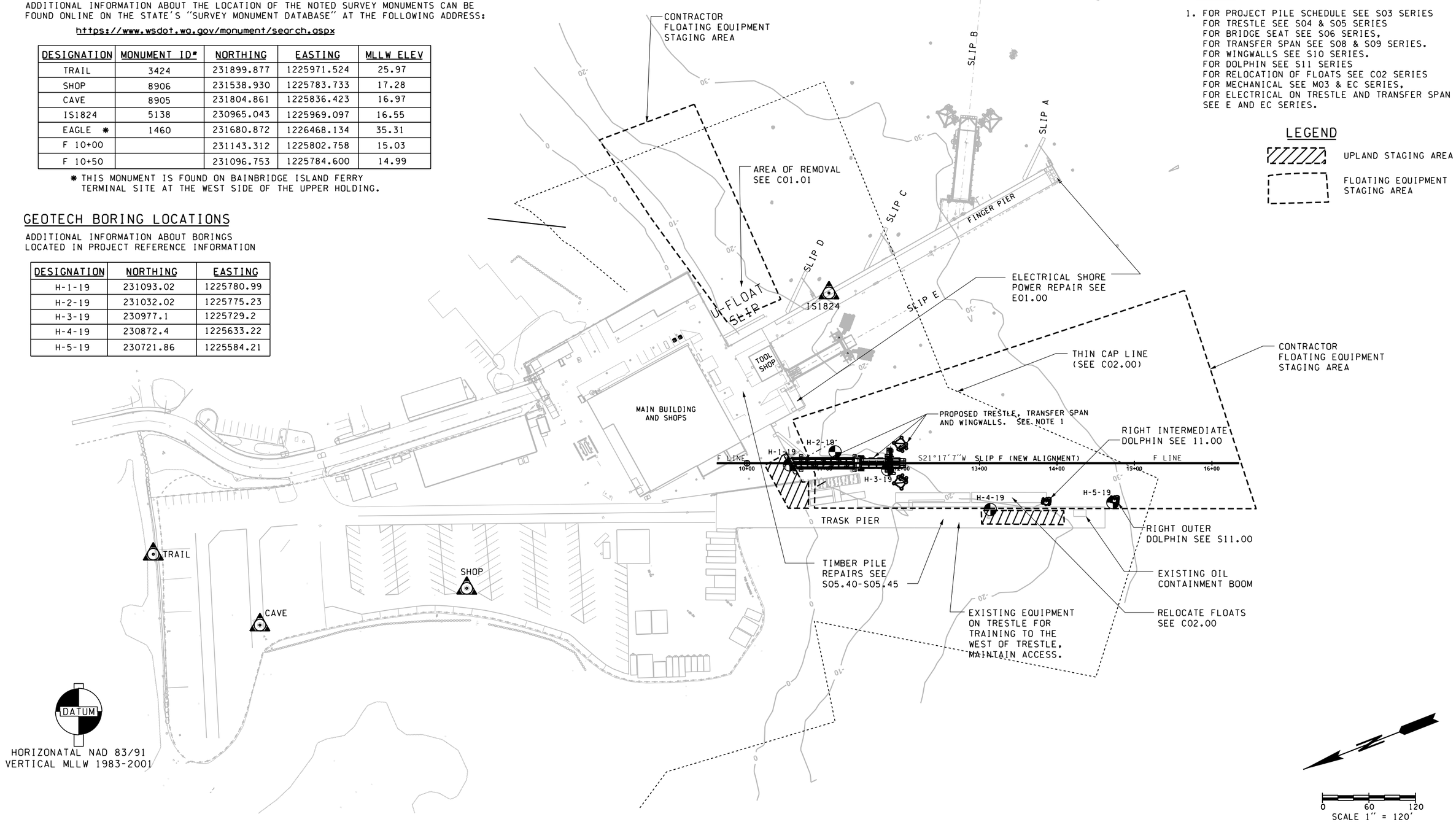
* THIS MONUMENT IS FOUND ON BAINBRIDGE ISLAND FERRY TERMINAL SITE AT THE WEST SIDE OF THE UPPER HOLDING.

GEOTECH BORING LOCATIONS

ADDITIONAL INFORMATION ABOUT BORINGS LOCATED IN PROJECT REFERENCE INFORMATION

DESIGNATION	NORTHING	EASTING
H-1-19	231093.02	1225780.99
H-2-19	231032.02	1225775.23
H-3-19	230977.1	1225729.2
H-4-19	230872.4	1225633.22
H-5-19	230721.86	1225584.21

T.27N. R.3.E. W.M.



NOTES

1. FOR PROJECT PILE SCHEDULE SEE S03 SERIES
   FOR TRESTLE SEE S04 & S05 SERIES
   FOR BRIDGE SEAT SEE S06 SERIES,
   FOR TRANSFER SPAN SEE S08 & S09 SERIES.
   FOR WINGWALLS SEE S10 SERIES.
   FOR DOLPHIN SEE S11 SERIES
   FOR RELOCATION OF FLOATS SEE C02 SERIES
   FOR MECHANICAL SEE M03 & EC SERIES,
   FOR ELECTRICAL ON TRESTLE AND TRANSFER SPAN SEE E AND EC SERIES.

LEGEND

UPLAND STAGING AREA

FLOATING EQUIPMENT STAGING AREA

FILE NAME: PW: WSF/Eagle Harbor/17w062SlipFtoDriveOn/PE/PE_PD/CAD/_Contract_Plans/100%/17w062c01_00.dlv						
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SUBMITTAL DATE: 1/11/22	morin					*-WA-***
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ENTERED BY: M. MORIN	1/18/2022					10 WASH
CHECKED BY: B. ENDRES	1/18/2022					JOB NUMBER
MAR PROJ ENGR: T. CASTOR	1/18/2022					17W062
DGN ENGR MNGR:						CONTRACT NO.
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		00****

THOMAS E. CASTOR — STATE OF WASHINGTON — 28478 — REGISTERED PROFESSIONAL ENGINEER

SEE CT01.00

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

SITE SURVEY AND STAGING AREA

C01.00

SHEET 7 OF 124 SHEETS

NOTES:

1. REMOVE AND DISPOSE OF EXISTING TIMBER PILE DOLPHINS
   DOLPHIN 1 - 35 TIMBER PILES AND 4 STEEL (12" DIA.)
   DOLPHIN 2 - 35 TIMBER PILES AND 4 STEEL (12" DIA.)
   DOLPHIN 3 - 35 TIMBER PILES
   DOLPHIN 4 - 35 TIMBER PILES
2. REMOVE PORTION OF TIMBER TRESTLE. SEE SHEET C01.02
3. REMOVE AND DISPOSE OF MARINA FLOATS. SALVAGE MOORING CLEATS FOR USE ON RELOCATED FLOATS.
4. RELOCATE EXISTING FLOATS 1 AND 2. SEE C02.00 FOR LOCATION. USE EXISTING 18" DIA 1/2"WALL SPIRAL WELDED PILES CURRENTLY MOORING FLOATS ALONG TIMBER PIER FOR THE REINSTALLATION. EACH PILE WILL REQUIRE ONE FIELD SPLICE. SEE S03.00 AND C02.00 FOR MORE DETAILS. PILE BRACKETS ON FLOAT 2 WILL BE REMOVED AND DISPOSED.
5. REMOVE AND DISPOSE OF EXISTING LANDING AND GANGWAY GOING TO FLOATS.

LEGEND:

HATCHED ITEMS FOR REMOVAL

HATCHED ITEMS FOR RELOCATION

REMOVE THREE 24" DIA. STEEL PILES AND ONE 20" DIA STEEL PILE

REMOVE AND DISPOSE SUSPENDED GANGWAY INCLUDING SUPPORTS TO CONCRETE TRESTLE AND SALVAGE HOIST

TOOL SHOP

℄ SLIP E

OLD ℄ SLIP F

EAGLE HARBOR

-30

-20

-0

SLIP F GANGWAY TO BE RELOCATED ONTO RELOCATED FLOATS AT CURRENT OPENING SEE C02.00

REMOVE AND DISPOSE OF FOUR (4) TIMBER PILE DOLPHINS. (SEE NOTE 1)

REMOVE AND DISPOSE 30" PILE, WITH CONNECTION TO CONCRETE TRESTLE. SALVAGE LIGHT, HOIST AND MODIFY GANGWAY BOOM FOR REINSTALL SEE SHEET C02.04

CURB OPENING BY CONTRACTOR HANDRAIL OPENING MODIFIED BY OTHERS

REMOVE AND DISPOSE OF LADDER

REMOVE AND DISPOSE TIMBER TRESTLE (53 TIMBER PILES, 13 TIMBER BENTS) (SEE NOTE 2) AND SHEET C01.02

REMOVE AND DISPOSE OF U-FLOAT SLIP FLOATS SALVAGE CLEATS (SEE NOTE 3) AND SHEET C01.02

TRASK TIMBER TRESTLE

REMOVE AND RELOCATE FLOATS - INCLUDES REMOVAL OF 6 STEEL SPIRAL WELDED 18" DIA. PILES (SEE NOTE 4) AND SHEETS C02.00-04

FLOAT 1

FLOAT 2

REMOVE AND DISPOSE OF LANDING AND GANGWAY (SEE NOTE 5)

THIN CAP LINE (SEE C02.00)

SCALE 1" = 40'

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ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062
CHECKED BY: B. ENDRES	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

THOMAS E. CASTOR — STATE OF WASHINGTON — 28478 — REGISTERED PROFESSIONAL ENGINEER

SEE CT01.00

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP
EXISTING SITE PREPARATION AND REMOVAL PLAN

C01.01

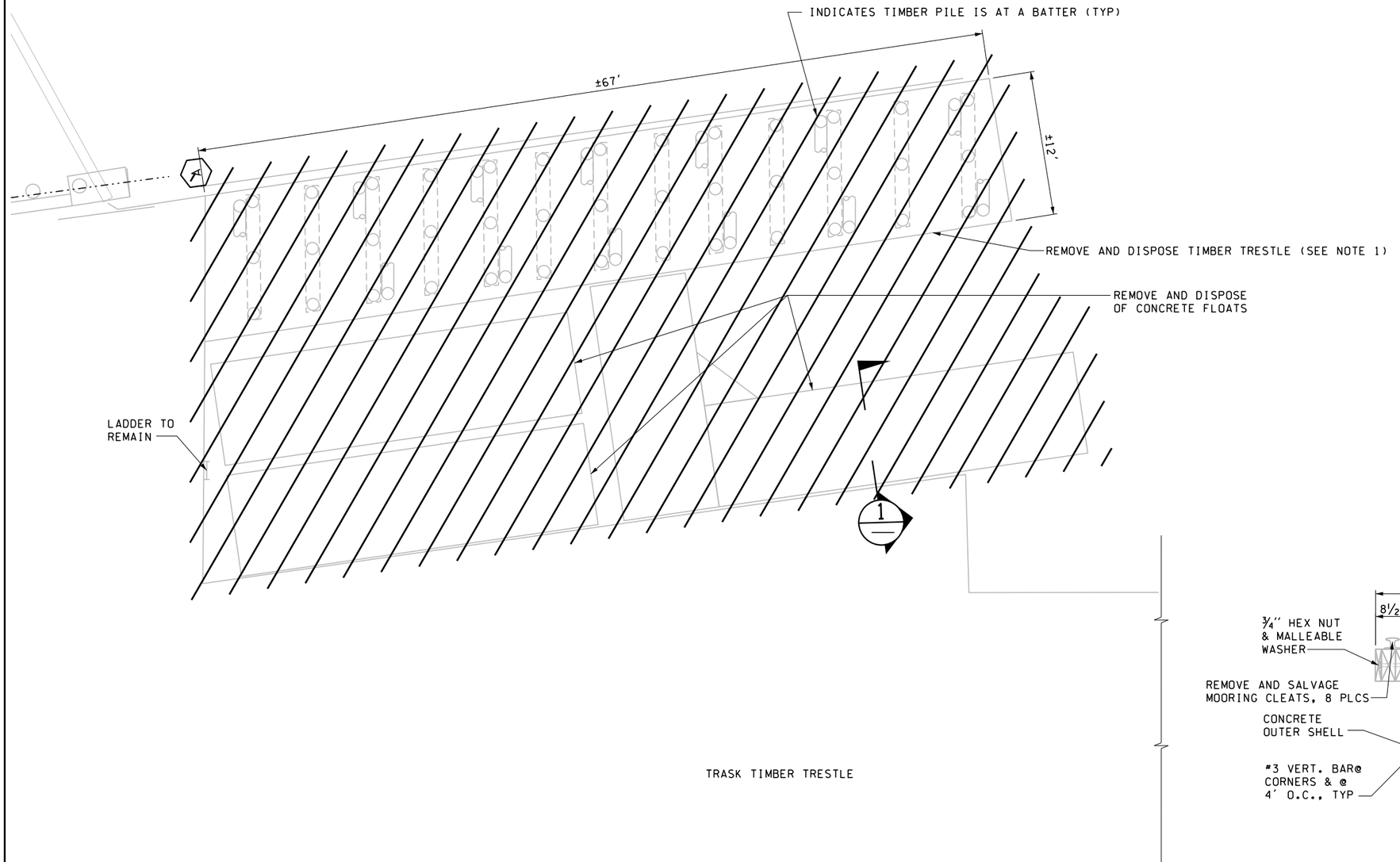
SHEET 8 OF 124 SHEETS

NOTES:

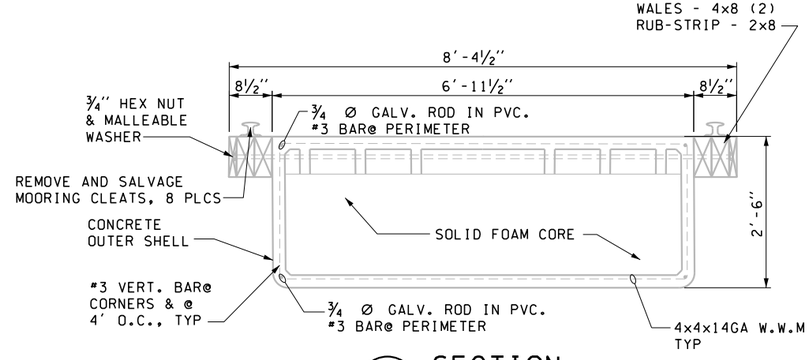
1. TRESTLE STRUCTURE CONSISTS OF:
   - 39 TIMBER PLUMB PILES (30' - 40' IN LENGTH)
   - 13 TIMBER BATTER PILES (35' - 45' IN LENGTH)
   - 13 PILE CAPS (14"x14")
   - 7 STRINGERS PER BAY (6"x16")
   - 3½" DECKING

LEGEND:

HATCHED ITEMS FOR REMOVAL



TRASK TIMBER TRESTLE



1 SECTION

TYPICAL FLOAT CROSS-SECTION
FOR DISPOSAL

0 10

SCALE 1" = 10'

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ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062
CHECKED BY: B. ENDRES	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
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THOMAS E. CASTOR — STATE OF WASHINGTON — 23473 — REGISTERED PROFESSIONAL ENGINEER

SEE CT01.00

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

PARTIAL PIER DEMOLITION

C01.02

SHEET 9 OF 124 SHEETS

LEGEND

THIN CAP LINE

THICK CAP 2

THICK CAP 3

FINGER PIER

℄ SLIP E

TOOL SHOP

-20

-30

THIN CAP LINE

RELOCATED FLOATS
SEE SHEET C02.01

FLOAT 1

FLOAT 2

TRANSFER SPAN AND HEADFRAME

BRIDGE SEAT

SLIP F TRESTLE

H-2-19

F LINE

S21°17′7″W

℄ SLIP F

F LINE

10+00

11+00

12+00

13+00

14+00

15+00

H-1-19

H-3-19

WINGWALLS

10°

RIGHT INTERMEDIATE DOLPHIN 1
SEE 1/S11.00

RIGHT OUTER DOLPHIN 2
SEE 1/S11.00

H-5-19

H-4-19

TRASK PIER

THICK CAP 2

THICK CAP 3

EXIST TRASK PIER

1

2

3

4

0 20 40
SCALE 1″ = 40′

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CHECKED BY: B. ENDRES	1/18/2022					JOB NUMBER 17W062
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						CONTRACT NO. 00****
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THOMAS E. CASTOR
STATE OF WASHINGTON
28478
REGISTERED
PROFESSIONAL ENGINEER

SEE CT01.00

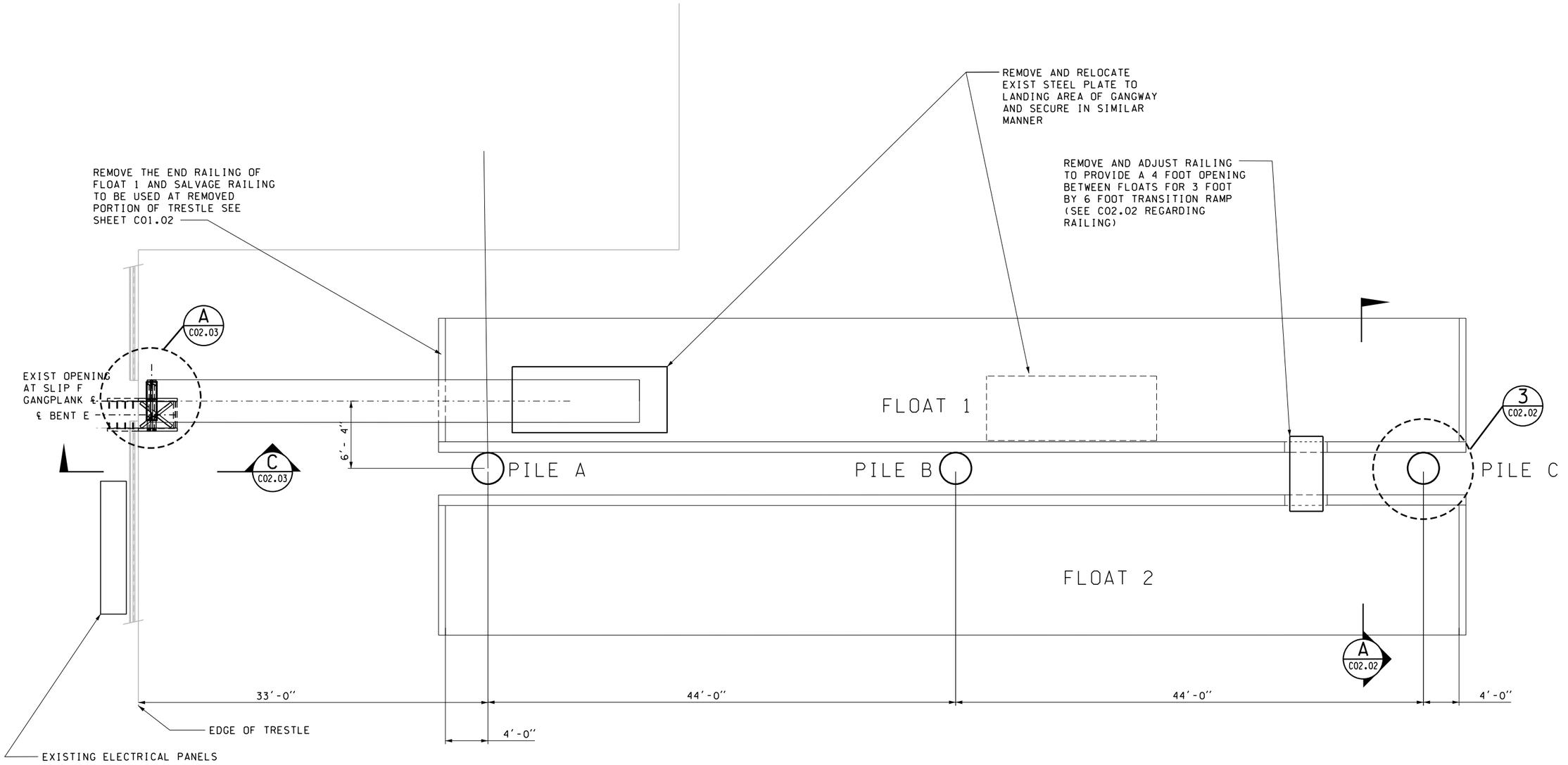
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

SITE PLAN

C02.00

SHEET 10 OF 124 SHEETS



RELOCATED FLOATS

SCALE 1" = 10'

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CHECKED BY: B. ENDRES	1/18/2022					10 WASH
MAR PROJ ENGR: T. CASTOR	1/18/2022					JOB NUMBER 17W062
DGN ENGR MNGR:						CONTRACT NO. 00****
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THOMAS E. CASTOR — STATE OF WASHINGTON — 28473 — REGISTERED PROFESSIONAL ENGINEER

SEE CT01.00

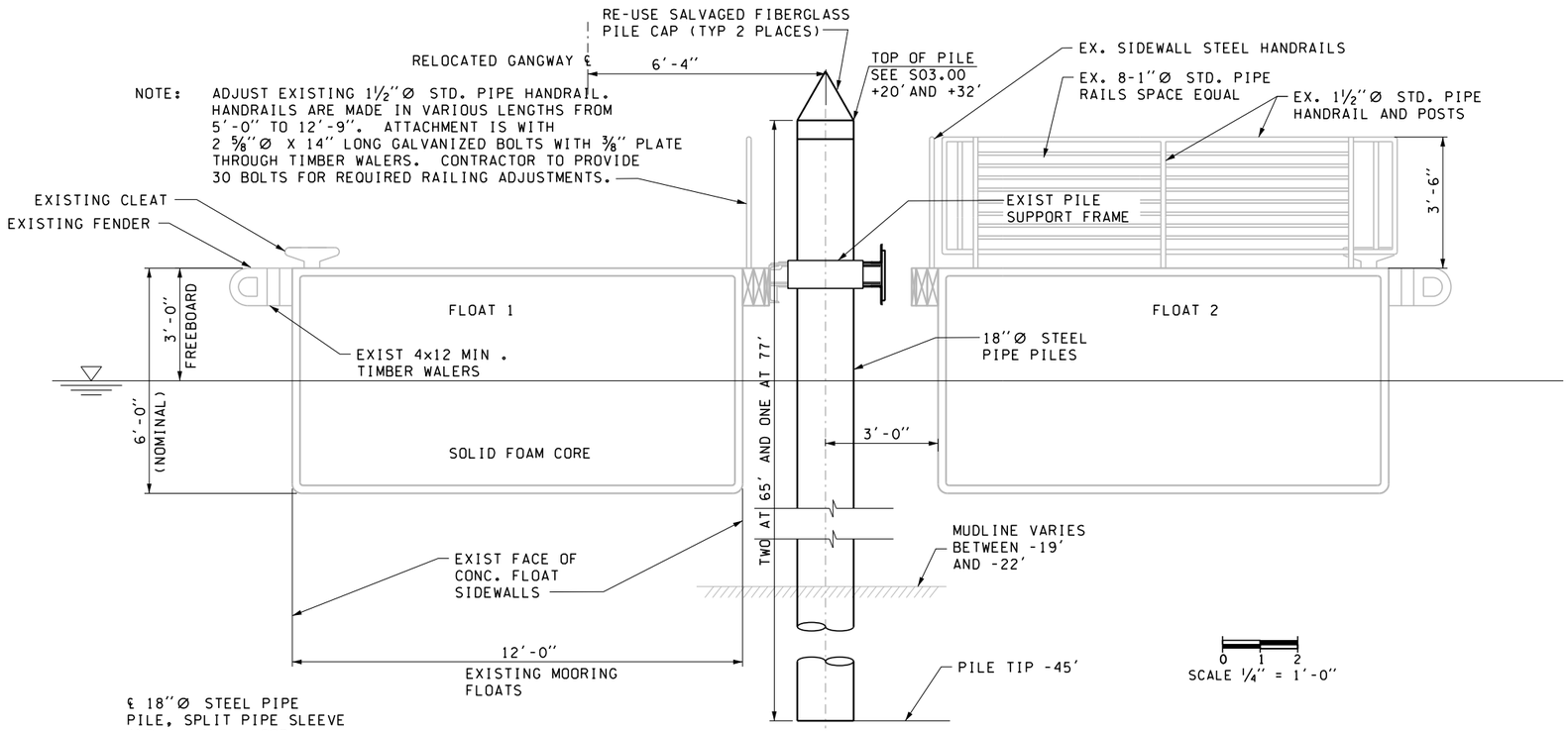
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

RELOCATED FLOATS

C02.01

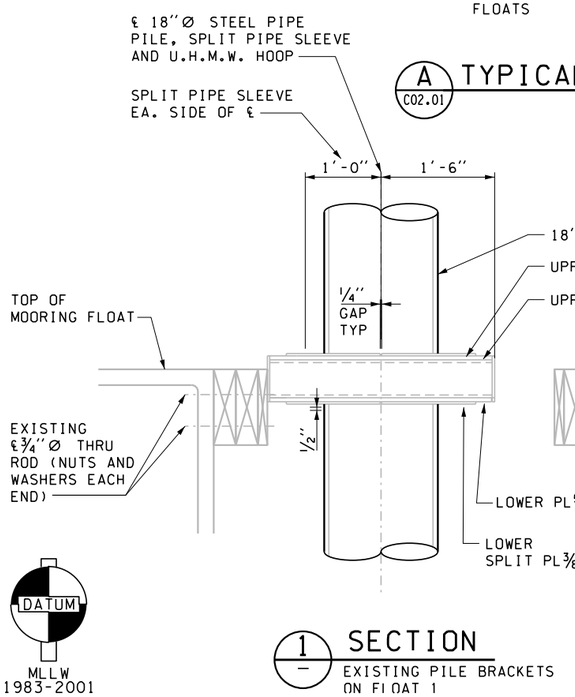
SHEET 11 OF 124 SHEETS



A C02.01 TYPICAL RELOCATED TRANSVERSE FLOAT SECTION

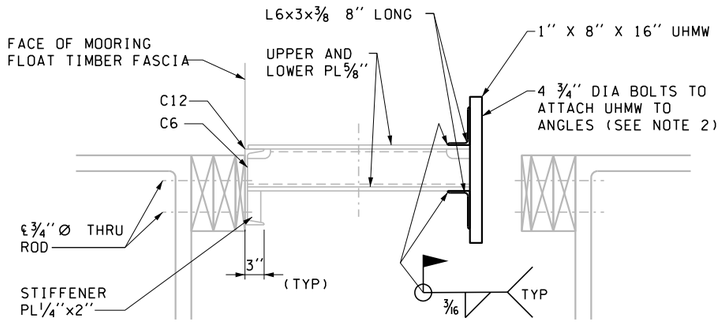
NOTES:

1. 18"Ø STEEL SPIRAL WELDED PILES ALONG THE TRASK PIER SHALL BE USED TO MAKE 3 PILES. ONE SPLICE FOR EACH PILING FOR THE REQUIRED LENGTH. THE REMAINING PIPE SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
2. AT EACH OF THE FENDER PILES ON FLOAT 1 MOUNT STEEL ANGLES AND THEN UHMW POLYETHYLENE.
3. REMOVE THE PILE BRACKETS ON FLOAT 2 AND DISPOSE.
4. AFTER FLOAT 1 IS INSTALLED AND BUMPERS ARE ADDED TO FENDER PILE BRACKETS THEN MOUNT 8 SALVAGED CLEATS ON FLOAT 1 AND FLOAT 2 THROUGH THE TIMBER WALERS AND TIE-UP FLOAT 2 TO FLOAT 1 WITH 3/4" DOUBLE BRAID NYLON ROPE WITH MIN 10,000 LBS BREAKING LOAD.

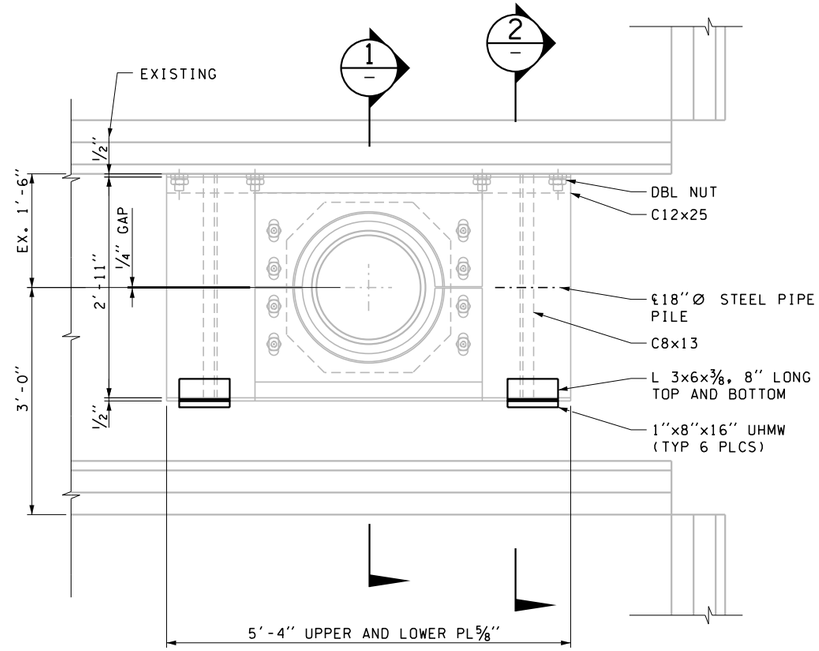


1/– SECTION

EXISTING PILE BRACKETS ON FLOAT 1



2/– SECTION



3/C02.01 DETAIL

0 1 2
SCALE ½" = 1'-0"

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DESIGNED BY: T. CASTOR	1/18/2022					REGION NO. STATE
ENTERED BY: M. MORIN	1/18/2022					10 WASH
CHECKED BY: B. ENDRES	1/18/2022					JOB NUMBER 17W062
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						CONTRACT NO. 00****
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THOMAS E. CASTOR — STATE OF WASHINGTON — 28475 — REGISTERED PROFESSIONAL ENGINEER

SEE CT01.00

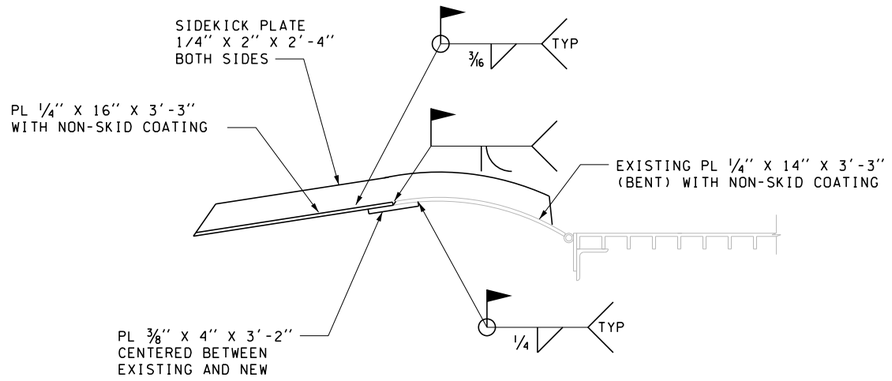
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

FLOAT DETAILS

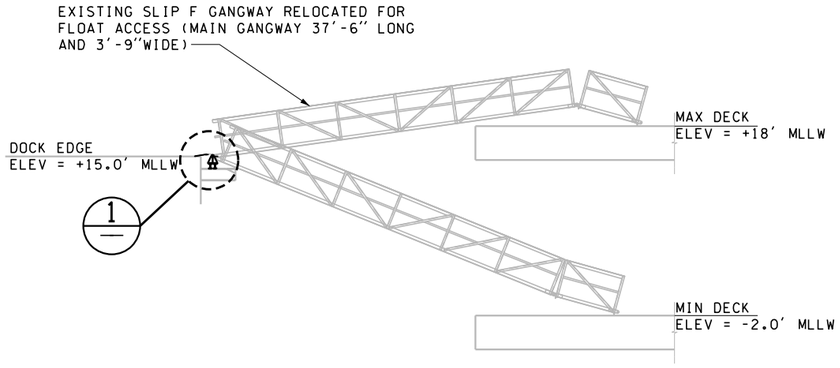
C02.02

SHEET 12 OF 124 SHEETS



1 GANGWAY TRANSITION COVERPLATE EXTENSION DETAIL

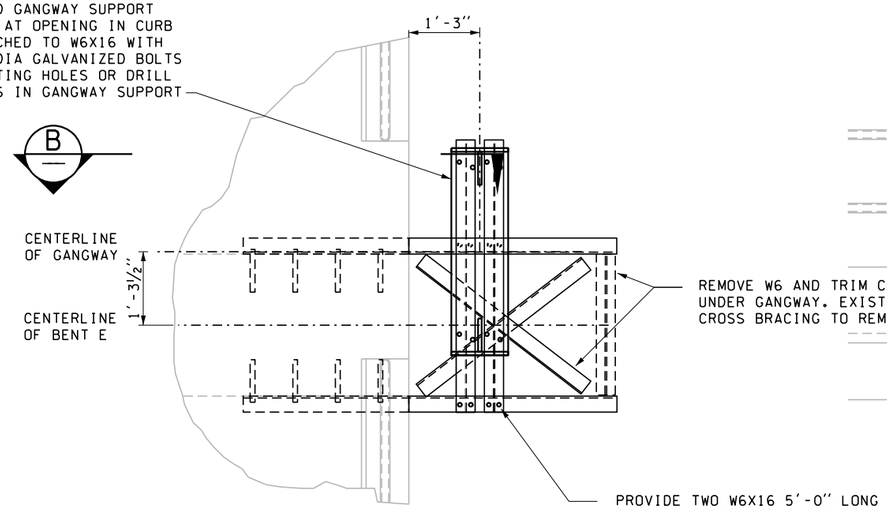
0 1
SCALE 1" = 1'-0"

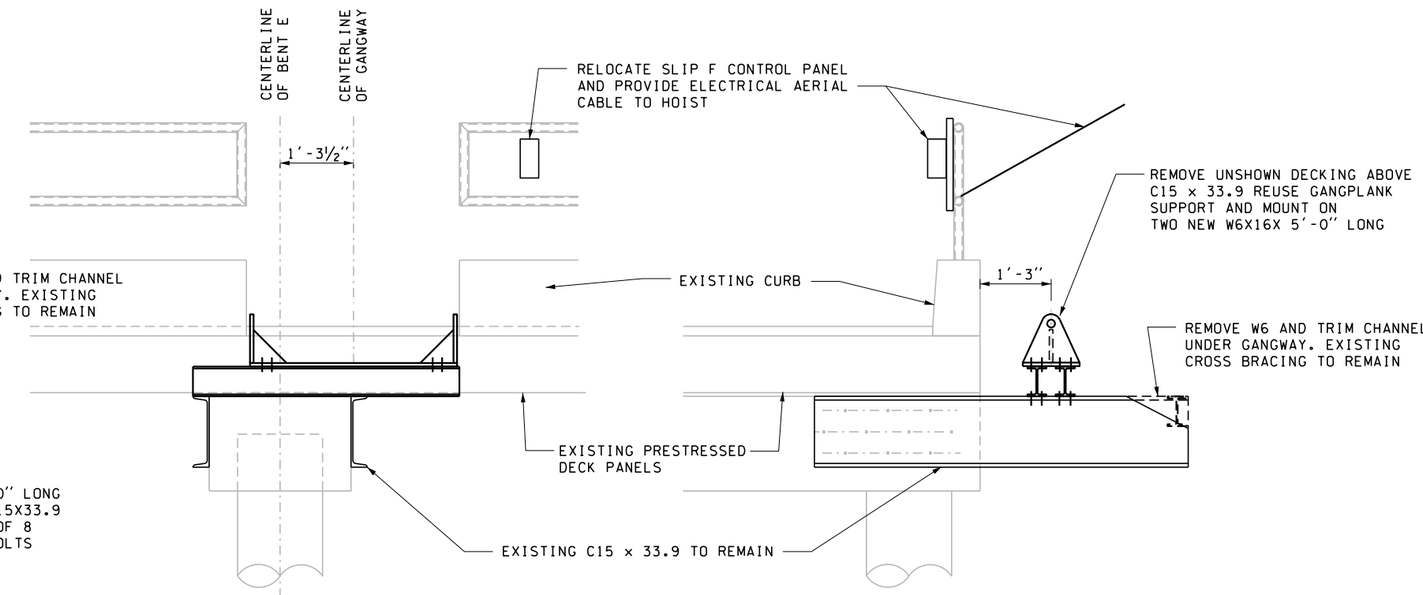


GANGWAY OPERATIONAL RANGE OF MOTION

0 1 10
SCALE 1/16" = 1'-0"

RELOCATED GANGWAY SUPPORT
CENTERED AT OPENING IN CURB
AND ATTACHED TO W6X16 WITH
(8) 3/4"DIA GALVANIZED BOLTS
USE EXISTING HOLES OR DRILL
NEW HOLES IN GANGWAY SUPPORT





DATUM
MLLW
1983-2001

A C02.01 PLATFORM PLAN

RELOCATED GANGWAY AND
REMOVED PORTION OF
WALKWAY DECKING NOT SHOWN

0 1 2
SCALE 3/8" = 1'-0"

B ELEVATION

0 1 2
SCALE 3/8" = 1'-0"

C C02.01 PLATFORM SECTION

0 1 2
SCALE 3/8" = 1'-0"

FILE NAME: PW: WSF/Eagle Harbor/17w062SlipFtoDriveOn/PE/PE_PD/CAD/_Contract_Plans/100%17w062c02_03.dlv						
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ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062
CHECKED BY: B. ENDRES	1/18/2022					CONTRACT NO. 00****
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ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

THOMAS E. CASTOR
STATE OF WASHINGTON
28478
REGISTERED
PROFESSIONAL ENGINEER

SEE CT01.00

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

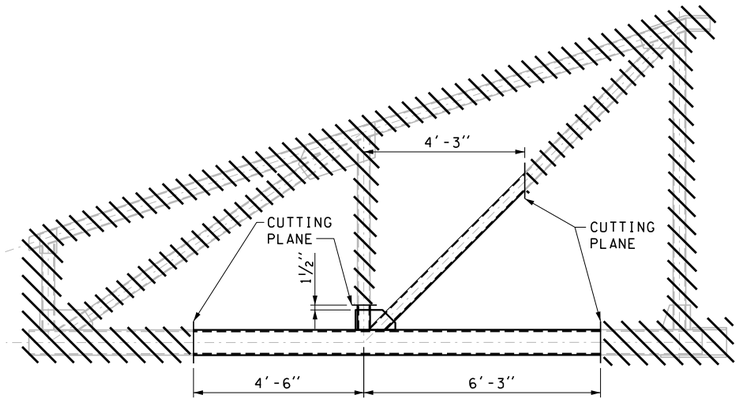
GANGWAY FLOAT DETAILS 1

C02.03

SHEET 13 OF 124 SHEETS

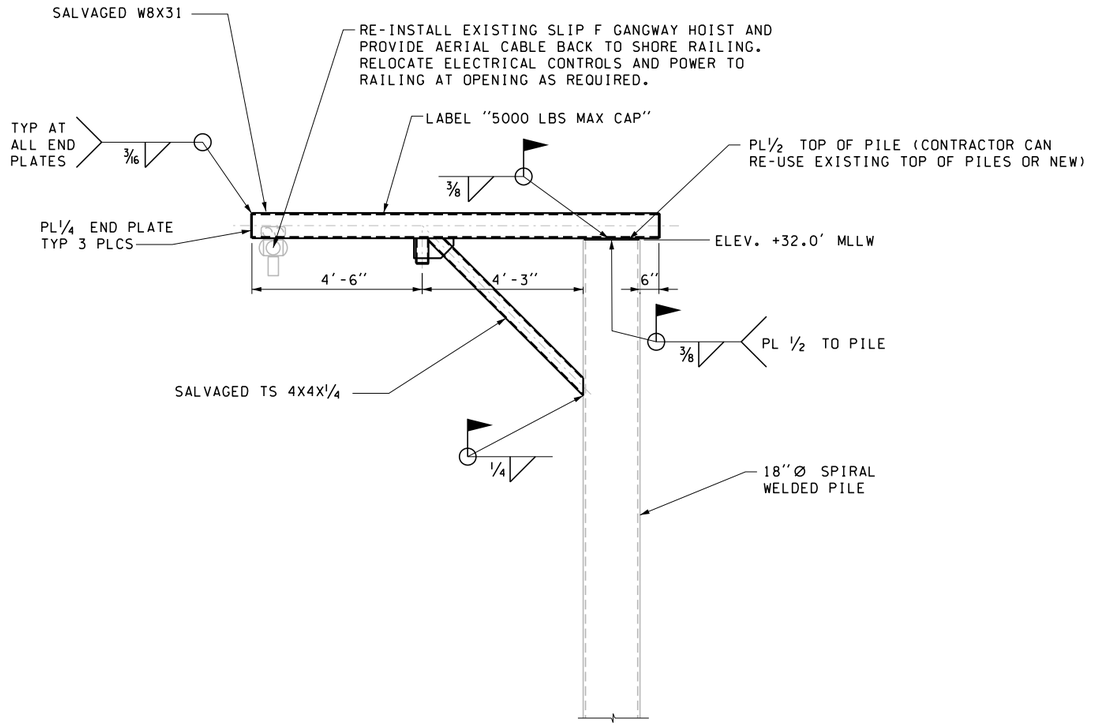
LEGEND:

HATCHED ITEMS FOR REMOVAL



-FULL TONE ELEMENTS TO BE SALVAGED FROM EXISTING SLIP F TIE-UP GANGWAY THAT IS REMOVED. SEE C01.01.
-PARTIAL TONED AN DASHED ELEMENTS TO BE DEMOLISHED.

SALVAGE PORTION OF EXISTING SLIP F BOOM



ELEVATION OF RENOVATED BOOM

MODIFY EXISTING BOOM AND INVERT AND INSTALL SALVAGED PORTION

DATUM
MLLW
1983 - 2001

FILE NAME: PW: WSF/Eagle Harbor/17w062SlipFtoDriveOn/PE/PE_PD/CAD/_Contract_Plans/100%17w062c02_04.dlv						
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ENTERED BY: M. MORIN	1/18/2022					10 WASH
CHECKED BY: B. ENDRES	1/18/2022					JOB NUMBER
MAR PROJ ENGR: T. CASTOR	1/18/2022					17W062
DGN ENGR MNGR:						CONTRACT NO.
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THOMAS E. CASTOR — STATE OF WASHINGTON — 28478 — REGISTERED PROFESSIONAL ENGINEER

SEE CT01.00

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

GANGWAY FLOAT DETAILS 2

C02.04

SHEET 14 OF 124 SHEETS

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
ACI	AMERICAN CONCRETE INSTITUTE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AITC	AMERICAN INSTITUTE OF TIMBER CONSTRUCTION
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
API	AMERICAN PETROLEUM INSTITUTE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
ABND	ABANDONED
AB	ANCHOR BOLT
ABS	AMERICAN BUREAU OF SHIPPING
ACP	ASPHALT CONCRETE PAVEMENT
ALT	ALTERNATE
ALUM	ALUMINUM
APPROX	APPROXIMATE
BOP	BOTTOM OF PLATE
BLDG	BUILDING
BP	BURIED POWER
BOT	BOTTOM
BRG	BEARING
CIPC	CAST-IN-PLACE CONCRETE
CB	CATCH BASIN
CFM	CUBIC FEET PER MINUTE
CG	CENTER OF GRAVITY
CL OR ℄	CENTER LINE
C TO C	CENTER TO CENTER
CLR	CLEAR
COEFF	COEFFICIENT
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
COORD	COORDINATE
CJ	CONSTRUCTION JOINT
CJP	COMPLETE JOINT PENETRATION
CTSK	COUNTERSUNK
CWT	COUNTERWEIGHT
D	STORM DRAIN
DFT	DRY FILM THICKNESS
DL	DEAD LOAD
DIA	DIAMETER
DF-L	DOUGLAS FIR-LARCH
DWG	DRAWING
EA	EACH
EL	ELEVATION
EP	EDGE OF PAVEMENT
EST	ESTIMATED
EXIST	EXISTING
FCM	FRACTURE CRITICAL MEMBER
FLGD	FLANGED
FS	FAR SIDE
FLG	FLANGE
FH	FLAT HEAD
FPS	FEET PER SECOND
FRP	FIBER REINFORCED POLYMER
FS	FEDERAL SPECIFICATION
FT	FOOT
GALV	GALVANIZED (HOT DIP)
GA	GAUGE
GDR	GIRDER
GRD	GROUND
GL	GROUND LEVEL
HAZMAT	HAZARDOUS MATERIALS
HS	HIGH STRENGTH
HSS	HOLLOW STRUCTURAL SECTION
HORIZ	HORIZONTAL
HMA	HOT MIX ASPHALT
IBC	INTERNATIONAL BUILDING CODE
IN	INCH
INTERM	INTERMEDIATE
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
INV	INVERT
JB	JUNCTION BOX
JT	JOINT
KB	KNEE BRACE
KT	KNOT
K-FT	KIP-FOOT
KSI	KIPS PER SQUARE INCH
L, LT	LEFT
LB	POUND
LF	LINEAR FEET
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LRFD	LOAD AND RESISTANCE FACTOR DESIGN
LFD	LOAD FACTOR DESIGN
LOC	LOCATION
LONG	LONGITUDINAL
LUM	LUMINAIRE
MB	MACHINE BOLT
MAL	MALLEABLE
MH	MAN HOLE
MFR	MANUFACTURER
MAX	MAXIMUM
MHW	MEAN HIGH WATER
MHHW	MEAN HIGHER HIGH WATER
MLW	MEAN LOW WATER
MLLW	MEAN LOWER LOW WATER
M	MICROPILE
MIN	MINIMUM
MPH	MILES PER HOUR
NAVD88	NORTH AMERICAN VERTICAL DATUM OF 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM OF 1929
NS	NEAR SIDE
N	NORTH, NORTHING
NAD83	NORTH AMERICAN DATUM 1983
NOM	NOMINAL
NTS	NOT TO SCALE
NO. OR #	NUMBER
OC	ON CENTER
OBS	OBSERVED
OD	OUTSIDE DIAMETER
OPP	OPPOSITE
OHW	ORDINARY HIGH WATER
PVMT	PAVEMENT
%	PERCENT
P	PILE, POWER
PCO	PILE CUT-OFF
PLCS	PLACES
PL	PLATE, PLATE STEEL
PCF	POUNDS PER CUBIC FOOT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PLF	POUNDS PER LINEAR FOOT
PT	POINT
PP	POWER POLE
PRCST	PRECAST
PROJ	PROJECTING
PVC	POLYVINYL CHLORIDE
R OR RAD	RADIUS
REF	REFERENCE
REINF	REINFORCED
REQ'D	REQUIRED
R	RADIUS, ROUGH SAWN
R, RT	RIGHT
R/W	R/W RIGHT OF WAY
RD	ROAD
RS	RISING STEM
SCFM	STANDARD CUBIC FEET PER MINUTE
SCH	SCHEDULE
SHT	SHEET
SIM	SIMILAR
SOLAS	SAFETY OF LIFE AT SEA
SQ	SQUARE
SQ FT	SQUARE FOOT
SQ IN	SQUARE INCH
SQ YD	SQUARE YARD
SPA	SPACES
SS, SST	STAINLESS STEEL
STD	STANDARD
STA	STATION
STIFF	STIFFENER
STIR	STIRRUP
ST	STREET
STR	STRAIGHT
SYMM ABT	SYMMETRICAL ABOUT
T	TOP, TON
TEMP	TEMPORARY
TFE	TEFLON-FILLED ELASTOMER
TM	TEMPORARY MICROPILE
TP	TEMPORARY PILE
THK	THICK
THRU	THROUGH
TOA	TOP OF ASPHALT
TOC	TOP OF CONCRETE, TOP OF CURB
TOD	TOP OF DECK
TOP	TOP OF PILE
TOS	TOP OF STEEL
TRANSV	TRANSVERSE
TYP	TYPICAL
UFC	UNIFIED FACILITIES CRITERIA
UHMW PE	ULTRA-HIGH MOLECULAR WEIGHT POLYETHYLENE
UP	UTILITY POLE
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
WAC	WASHINGTON ADMINISTRATIVE CODE
WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
WSF	WASHINGTON STATE FERRIES
WV	WATER VALVE
WWF	WELDED WIRE FABRIC
WP	WORKING POINT
W	TIMBER PILE
W/	WITH

STRUCTURAL PLANS SYMBOLS

- WORK POINT
- SOIL BORING LOCATION
- STEEL PATTERN
- CONCRETE PATTERN
- WOOD PATTERN
- FCM — FRACTURE CRITICAL MEMBER
- V — PRIMARY LIVE LOAD CARRYING TENSION MEMBER
- ∅ — DIAMETER
- EXISTING PILE
- STEEL PILE
- X — EXISTING STRUCTURE GRID
- X — STRUCTURE GRID
- REMOVAL ITEMS
- LUMINAIRE POLE AND LUMINAIRE
- FENCE
- +XX.XX / TOS — ELEVATION (DISPLAYED IN FEET)
- REBAR WITH STD HOOK AT ONE END
- EL=XX.XX' — TOP OF DECK ELEVATION
- EL=XX.XX' — TOP OF SLAB SPOT ELEVATION
- WATERLINE ELEVATION
- PX — PILE MARK

UNITS:

UNITS SHOWN ARE IN FEET AND INCHES.
ELEVATIONS AND STATIONS ARE SHOWN IN FEET, UNLESS OTHERWISE SPECIFIED.

A / S-6 — LETTER IDENTIFIES SECTION OR VIEW. IDENTIFIES SHEET NO ON WHICH SECTION, VIEW OR DETAIL IS SHOWN OR TAKEN FROM.

1 — NUMBER IDENTIFIES DETAIL. IDENTIFIES SECTION, VIEW OR DETAIL WHICH IS TAKEN FROM OR SHOWN ON THE SAME SHEET.

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ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062
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MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KILBORN — STATE OF WASHINGTON — 38260 — REGISTERED PROFESSIONAL ENGINEER

SEE CT01.00

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

ABBREVIATIONS AND SYMBOLS

S00.01

SHEET 15 OF 124 SHEETS

GENERAL NOTES

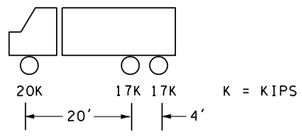
1. ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION STANDARD SPECIFICATIONS, DATED 2022, AND SPECIAL PROVISIONS.
2. ALL DIMENSIONS AND ELEVATIONS ARE HORIZONTAL AND VERTICAL UNLESS OTHERWISE NOTED.
3. THE DIMENSIONS SHOWN ON THE CONTRACT PLANS FOR EXISTING STRUCTURES ARE BASED ON CONSTRUCTION RECORDS AND FIELD SURVEY DATA. RECORD DRAWINGS ARE NOT NECESSARILY COMPLETE NOR ACCURATE. FIELD CONDITIONS MAY VARY FROM THE RECORD DRAWINGS AND THE CONTRACT PLANS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING FIELD CONDITIONS PRIOR TO SHOP FABRICATION. THE CONTRACTOR SHALL VERIFY ALL RELEVANT DIMENSIONS AND SURVEY DATA.
4. THE LOCATION OF ALL THE UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
5. PERMANENT VEHICLE STRUCTURE DESIGN LIFE IS 75 YEARS.

DESIGN CODES

1. AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN 2ND EDITION WITH 2012, 2014 AND 2015 INTERIM REVISIONS.
2. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 8TH EDITION, SUPPLEMENTED WITH WSDOT BRIDGE DESIGN MANUAL LRFD.
3. AASHTO LRFD MOVABLE HIGHWAY BRIDGE DESIGN SPECIFICATIONS 2ND EDITION, WITH 2015 INTERIM REVISIONS AND ASSOCIATED REFERENCE DOCUMENTS.
4. DESIGN OF COMPONENTS IS IN CONFORMANCE WITH ASCE 7-16.
5. LADDERS SHALL MEET THE REQUIREMENTS OF WAC 296-876-500.

DESIGN LOADING

1. TRESTLE AND TRANSFER SPAN ARE DESIGNED FOR THE WSF MAINTENANCE TRUCK.



2. MAINTENANCE HANGERS ARE DESIGNED TO SUPPORT THE TRANSFER SPAN AND THE WSF MAINTENANCE TRUCK IN ANY POSITION ON THE SPAN WITH COUNTERWEIGHT SUPPORT AND NO SUPPORT FROM THE VESSEL ON THE OFFSHORE END.
3. SEISMIC DESIGN
   TWO LEVEL SEISMIC PERFORMANCE CRITERIA: SAFETY EVALUATION EARTHQUAKE (SEE), AND FUNCTIONAL EVALUATION EARTHQUAKE (FEE).
   A) SAFETY EVALUATION EARTHQUAKE HAS 7% PROBABILITY OF EXCEEDENCE IN 75 YEARS, FOR A 1000 YEAR RETURN PERIOD.
   B) FUNCTIONAL EVALUATION EARTHQUAKE HAS A 30% PROBABILITY OF EXCEEDANCE IN 75 YEARS, FOR A 210 YEAR RETURN PERIOD.
   C) IMPORTANCE CLASSIFICATION: NORMAL
   D) SITE CLASS D FOR TRESTLE, TRANSFER SPAN AND HEADFRAME
   E) THE EARTHQUAKE RESISTING SYSYTEM WILL CONSIST OF A DUCTILE SUBSTRUCTURE WITH ESSENTIALLY ELASTIC SUPERSTRUCTURE.
4. WIND DESIGN FOR MAIN WIND FORCE RESISTING STRUCTURES IS IN ACCORDANCE WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION, BASIC WIND SPEED 110 MPH, PRESSURE EXPOSURE AND ELEVATION COEFFICIENT 1.25, GUST FACTOR 1.0, DRAG COEFFICIENT 1.6, STRUCTURE HEIGHT BASED ON MLLW = 0.0'
5. FALL ARREST SYSTEMS SHALL BE CONTRACTOR DESIGNED TO MEET THE REQUIREMENTS OF WAC296-155-24613. ANCHORAGES MUST BE CAPABLE OF SUPPORTING A 5000 LB ULTIMATE LOAD IN ANY DIRECTION.

CONCRETE

1. ALL CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF STD. SPEC. SECTION 6-02.2 AND SPECIAL PROVISIONS.
2. THE CLASS OF CONCRETE TO BE USED SHALL BE THE FOLLOWING, UNLESS NOTED OTHERWISE

   a. PIER 1, 2, AND 3 PILE CAPS: CLASS 5000
   B. TOPPING SLAB: CLASS 4000

REINFORCING STEEL

1. ALL REINFORCING STEEL EXCEPT FOR WELDED WIRE FABRIC, SHALL CONFORM TO THE REQUIREMENTS OF ASTM A706.
2. ALL BARS SHALL BE EPOXY COATED IN ACCORDANCE WITH STD. SPEC. SECTIONS 6-02.3(24)H AND 9-07.3 UNLESS OTHERWISE NOTED.
3. SPLICES OF REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF AASHTO LRFD, 8TH EDITION, UNLESS NOTED OTHERWISE.
4. ALL WELDING SHALL CONFORM TO AWS D1.4-2018 - REINFORCING STEEL AND STD SPEC. SECTION 6-02.3(24)E.
5. UNLESS OTHERWISE SPECIFIED, THE MINIMUM CLEAR COVER FROM FACE OF CONCRETE TO FACE OF ANY REINFORCING STEEL SHALL BE 3 INCHES.
6. HEADED STEEL REINFORCING BARS SHALL CONFORM TO STD. SPEC. 9-07.2 AND ASTM A970 AND SHALL BE FORGED. HEADED DIMENSIONS SHALL CONFORM TO ASTM A970 TALBLE 1 ON THIS SHEET.

TABLE 1

BAR SIZE	#6	#7	#8	#11	#13
HEAD THICKNESS (IN)	0.39	0.44	0.50	0.70	1.02
HEAD DIAMETER (IN)	1.69	1.97	2.25	3.19	3.82

NONSHRINK GROUT

1. GROUT SHALL BE NONSHRINK TYPE 2 IN ACCORDANCE WITH STD SPEC. SECTION 9-20.3(2).

STRUCTURAL STEEL

1. W-SECTIONS AND PLATE SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50, MIN. REQ'D. YIELD STRENGTH Fy = 50 KSI.
2. BARS, CHANNELS, AND ANGLES SHALL CONFORM TO THE REQUIREMENTS OF ASTM 709. GRADE 36 MIN. REQ'D YIELD STRENGTH Fy=36 KSI, UNLESS NOTED OTHERWISE.
3. HOLLOW STRUCTURAL SECTIONS (HSS) SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE C, MIN Fy= 50 KSI
4. PIPE, NOT INCLUDING PILES, SHALL CONFORM TO THE REQUIREMENTS OF ASTM A53, GRADE B MIN YIELD FY=35KSI
5. HIGH STRENGTH BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F3125, GRADE A325, TYPE 1. NUTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A563. WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F436.
6. STAINLESS STEEL BOLTS SHALL CONFORM TO ASTM A193 GRADE B8M UNLESS NOTED OTHERWISE. NUTS SHALL CONFORM TO ASTM A194, GRADE 8M AND WASHERS SHALL CONFORM TO ASTM A240 TYPE 316 AND THE GEOMETRIC REQUIREMENTS OF ANSI B18.22.1.
7. THREADED ANCHOR RODS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F1554. GRADE 55. MIN Fy=55 KSI, AND SHALL BE WELDABLE, MEETING SUPPLEMENTARY REQUIREMENT S1.
8. WELDED HEADED STUDS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A108 MIN Fy= 50 KSI.

STRUCTURAL STEEL

9. ELEMENTS MARKED (FCM) ARE FRACTURE CRITICAL ELEMENTS AND SHALL MEET THE FRACTURE CONTROL REQUIREMENTS OF AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND AWS D1.5.
10. ELEMENTS MARKED (V) ARE PRIMARY LOAD CARRYING TENSION MEMBERS OR TENSION COMPONENTS OF FLEXURAL MEMBERS AND SHALL MEET THE LONGITUDINAL CHARPYV-NOTCH TESTS AS DESCRIBED IN THE SPECIAL PROVISIONS.
11. (X) DENOTES OPTIONAL TENSION BUTT SPLICE FOR ELEMENTS OF PLATE GIRDERS REQUIRING RADIOGRAPHIC INSPECTION.
12. TRESTLE AND TRANSFER SPAN RAILING AND POSTS ARE SECONDARY MEMBERS AND DO NOT REQUIRE CVN TESTING.

WELDING STRUCTURAL STEEL

1. ALL WELDING SHALL CONFORM TO AWS D1.1-2020 STRUCTURAL WELDING CODE - STEEL.
2. IN ADDITION, WELDING OF TRESTLE PLATE GIRDER, FLOOR BEAMS, AND STRINGERS SHALL CONFORM TO AWS D1.5 BRIDGE WELDING CODE 2020.
3. ALL WELDING OF STAINLESS STEEL SHALL CONFORM TO AWS D1.6 STRUCTURAL WELDING CODE - STAINLESS STEEL
4. ALL HSS TUBE TO TUBE WELDS SHALL BE IN ACCORDANCE WITH AWS D1.1 2020 PREQUALIFIED JOINT DETAILS, AND THE SPECIAL PROVISIONS.
5. WELDED HEADED STUDS SHALL BE INSTALLED BY MEANS OF STUD WELDING EQUIPMENT IN ACCORDANCE WITH AWS D1.1-2010 SECTION 7 STUD WELDING.
6. SEE STD. SPEC. SECTION 6-03.3(25) FOR FURTHER INFORMATION ON WELDING AND SECTION 6-03.3(25)A AND THE SPECIAL PROVISIONS FOR FURTHER INFORMATION ON WELDING INSPECTION.
7. ALL HOLLOW STRUCTURAL SECTIONS SHALL BE CAPPED AT THEIR ENDS WITH 1/4-INCH PLATES WITH SEAL WELD GROUND SMOOTH, UNLESS OTHERWISE NOTED.

COATING

1. ALL STEEL AND HARDWARE SHALL BE COATED IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND STANDARD SPECIFICATIONS.
2. WHERE GALVANIZING IS INDICATED, HOT DIP GALVANIZE STEEL MEMBERS AND ASSEMBLIES AFTER FABRICATION IN ACCORDANCE WITH ASTM A123.
3. EXCEPT FOR STAINLESS STEEL BOLTS, HOT DIP GALVANIZE ALL BOLTS, NUTS, AND WASHERS IN ACCORDANCE WITH AASHTO M232, OR ASTM F2329, AS APPLICABLE.
4. HOT-DIP GALVANIZED SURFACES ALTERED OR DAMAGED BY CONSTRUCTION OR HANDLING SHALL BE REPAIRED IN ACCORDANCE WITH ASTM A780.
5. SEE SPECIAL PROVISIONS FOR PAINT COLOR.

EARTHQUAKE RESISTING SYSTEM

PER AASHTO GUIDE SPECS FOR LRFD SEISMIC BRIDGE DESIGN, THE DESIGN IS BASED ON A DUCTILE SUBSTRUCTURE WITH ESSENTIALLY ELASTIC SUPERSTRUCTURE. ALTHOUGH DESIGNED TO REMAIN ELASTIC IN THE SEE, THE PILE TO CAP CONNECTIONS ARE DUCTILE, AND PILE CAPS AND SUPERSTRUCTURE ARE CAPACITY-PROTECTED TO THE HINGING MOMENTS OF THESE CONNECTIONS. THE HEADFRAME BEAMS AND PILES ARE ALSO EXPECTED TO REMAIN ELASTIC IN THE SEE. HEADFRAME BEAM TO PILE CONNECTIONS ARE CAPACITY-PROTECTED AGAINST FULL PLASTIC HINGING IN THE HEADFRAME BEAMS TO ENSURE A DUCTILE FRAME. ALL ELEMENTS WILL REMAIN ELASTIC AND DAMAGE-FREE AT THE FEE LEVEL EVENT.

FRP GRATING

GRATING SHALL BE TWO-WAY SPANNING MOLDED FIBER-REINFORCED POLYMER GRATING. MINIMUM MANUFACTURER'S RECOMMENDED LOAD CAPACITY SHALL BE 100 PSF FOR A 3'-6" SPAN AT A RATED DEFLECTION OF 3/8" OR LESS. GRATING SHALL HAVE INTEGRAL GRIT NON-SKID TOP SURFACE. EACH INDIVIDUAL SEGMENT OF GRATING SHALL HAVE A MINIMUM OF FOUR ATTACHMENT POINTS CONSISTING OF STAINLESS STEEL CLIPS AND THROUGH BOLTS ATTACHED TO BEAM OR CHANNEL FLANGES.

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CHECKED BY: M. WRAY	1/18/2022					JOB NUMBER 17W062
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ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFERY PAUL KILBORN — STATE OF WASHINGTON — 30260 — REGISTERED PROFESSIONAL ENGINEER

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Washington State Department of Transportation
WASHINGTON STATE FERRIES

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SLIP F DRIVE ON TIE-UP SLIP

TRESTLE & T-SPAN GENERAL NOTES I

S00.02

SHEET 16 OF 124 SHEETS

STEEL DECK GRATING

STEEL DECK GRATING FOR TRESTLE AND TRANSFER SPAN SHALL CONFORM TO ONE OF THE FOLLOWING:

1. OHIO GRATING INC (OGI) 37-R-5 HEAVY DUTY BRIDGE DECK W/ SERRATED CONNECTING BARS. BEARING BARS SHALL BE 5" X 1/4" AT 2 9/16" SPACING.

2. GRATING PACIFIC 37-R-5 SERRATED SURFACE BRIDGE DECKING. BEARING BARS SHALL BE 5" X 1/4" AT 2 9/16" SPACING.

3. OR APPROVED EQUAL. DECK GRATING SHALL CONSIST OF 5" DEEP X 1/4" WIDE BEARING BARS AT 2 3/8" MINIMUM AND 2 9/16" MAXIMUM SPACING, WITH 1" X 1/4" WELDED CROSS BARS AT 2" SPACING MAXIMUM. BARS SHALL BE SERRATED. GRATING SHALL BE RATED FOR AASHTO H-15 WHEEL LOADS AND ACTUAL CLEAR SPAN.

ALL GRATING SEGMENTS SHALL BE BANDED AND HOT-DIP GALVANIZED.

WOOD

TIMBER BOLT/LAG CONNECTIONS

BOLTS AND LAG SCREWS SHALL CONFORM TO ASTM307. INSTALLATION OF BOLTS AND LAG SCREWS SHALL BE PER 6.02.3(17)I

AFTER INSTALLATION OF THE NUT THE BOLT THREADS SHALL BE BURRED.

ALL CUT SURFACES, SPIKE AND BOLT HOLES, AND CONTACT SURFACES SHALL BE TREATED IN ACCORDANCE WITH SECTION 6-04.3(4).

ALL UNUSED SPIKE AND BOLT HOLES SHALL BE COMPLETELY FILLED WITH UNCOMPRESSIBLE MATERIAL APPROVED BY THE ENGINEER..

HOLES DRILLED IN TIMBER PILES SHALL BE ON THE CENTERLINE OF THE PILES/POSTS, UNLESS NOTED OTHERWISE.

TIMBER-TO-TIMBER AND TIMBER-TO-STEEL CONNECTIONS SHALL HAVE NUTS TIGHTENED TO 100 FOOT-POUNDS TORQUE.

CONSTRUCTION ACCESS AND LOAD LIMITS

CONSTRUCTION EQUIPMENT ON WSF STRUCTURES

IN ACCORDANCE WITH STANDARD SPECIFICATION 1-07.7 FOR LOAD-LIMITS, THE CONTRACTOR SHALL SUBMIT TYPE 3E WORKING DRAWINGS AND CALCULATIONS, DESCRIBING THE LOCATION OF CONSTRUCTION EQUIPMENT, INCLUDING CRANES, OUTRIGGERS, GRILLAGE BEAMS, AND EQUIPMENT TRACKS RELATIVE TO THE WSF STRUCTURES. SUPPORTING CALCULATIONS SHALL SHOW THE LOADS AND LOAD PATH, AND THE CAPACITY OF THE EXISTING WSF TERMINAL STRUCTURES TO SUPPORT CONSTRUCTION LOADS, INCLUDING THE DECK, BEAMS, PILE CAPS, AND TRESTLE PILES.

LOAD FACTORS FOR DETERMINING FACTORED CONSTRUCTION LOADS ARE BASED ON THE WSDOT BRIDGE DESIGN MANUAL, LRFR METHOD SECTION 13.1.1, AS FOLLOWS:

LIVE LOAD FACTOR	1.2
IMPACT FACTOR	10%, SEE NOTE 1
DEAD LOAD FACTOR FOR STRUCTURAL COMPONENTS AND ATTACHMENTS	1.25
WEARING SURFACE LOAD FACTOR	1.5

NOTES:
1. THE IMPACT FACTOR APPLIES TO LIVE LOAD BUT IS NOT REQUIRED TO BE APPLIED TO FOUNDATION COMPONENTS THAT ARE BELOW THE GROUND SURFACE.

WSF WILL PROVIDE RECORD DRAWINGS OF THE EXISTING STRUCTURES.

TIDAL DATUM

1. TIDAL DATUM MLLW = 0.0', BASED ON 83-01 EPOCH. NOTE THAT REFERENCE DRAWINGS SHOWING OLDER STRUCTURES MAY BE BASED ON AN EARLIER EPOCH AND A CONVERSION FACTOR IS REQUIRED TO CONVERT ELEVATIONS FROM DIFFERENT EPOCHS. MLLW BASED ON THE 83-01 EPOCH IS 0.17 FT HIGHER THAN MLLW BASED ON THE 60-78 EPOCH.

2. DESIGN TIDAL INFORMATION:

EXTREME LOW WATER:	-4.88 FT
EXTREME HIGH WATER:	14.60 FT
W/ SLR:	15.68 FT

SLR IS SEA LEVEL RISE, TRANSFER SPAN HAS BEEN ELEVATED BY 1.63' RELATIVE TO THE YARD PIER TRESTLE, THE PROPOSED TRESTLE SLOPES TO ACCOMMODATE THIS TRANSITION FROM THE SPAN TO THE EXISTING TRESTLE.

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JEFFREY PAUL KILBORN — STATE OF WASHINGTON — 30260 — REGISTERED PROFESSIONAL ENGINEER

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TRESTLE & T-SPAN GENERAL NOTES II

S00.03

SHEET 17 OF 124 SHEETS

DESIGN SPECIFICATIONS

DESIGN SPECIFICATIONS FOR BERTHING AND MOORING STRUCTURES ARE IN ACCORDANCE WITH WSF TERMINAL DESIGN MANUAL.

LADDERS HAVE BEEN DESIGNED IN ACCORDANCE WITH WASHINGTON ADMINISTRATIVE CODE 296-56.

CONSTRUCTION SPECIFICATIONS

ALL MATERIAL AND WORKMANSHIP SHOWN IN THE CONTRACT PLANS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, DATED 2022.

ALL DIMENSIONS AND ELEVATIONS ARE HORIZONTAL AND VERTICAL UNLESS OTHERWISE NOTED.

THE DIMENSIONS SHOWN ON THE CONTRACT PLANS FOR EXISTING STRUCTURES ARE BASED ON CONSTRUCTION RECORDS AND FIELD SURVEY DATA. RECORD DRAWINGS ARE NOT NECESSARILY COMPLETE NOR ACCURATE. FIELD CONDITIONS MAY VARY FROM THE RECORD DRAWINGS AND THE CONTRACT PLANS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING FIELD CONDITIONS PRIOR TO SHOP FABRICATION. THE CONTRACTOR SHALL VERIFY ALL RELEVANT DIMENSIONS AND SURVEY DATA.

PLANS OF EXISTING STRUCTURES NOT INCLUDED IN THE CONTRACT PLANS ARE AVAILABLE FOR REVIEW AT THE OFFICE OF THE ENGINEER.

TIDAL DATA FOR EAGLE HARBOR

SOURCE:	NOAA
MHHW:	+11.31 FT
NAVD88:	+2.51 FT
MLLW:	0.00 FT (DATUM)

DESIGN TIDAL RANGE

MAXIMUM:	+14.60 FT MLLW
MINIMUM:	-4.98 FT MLLW

SURVEY DATUM

WASHINGTON STATE PLANE NORTH 4601
HORIZONTAL DATUM: NAD 83/91
VERTICAL DATUM: MLLW

FIXED DOLPHIN BERTHING AND MOORING DESIGN CRITERIA

DESIGN VESSEL PARTICULARS

VESSEL CLASS:

LAY-UP (LIGHT) VESSEL	ISSAQUAH 130	JUMBO MARK II
DISPLACEMENT (LONG TONS):	2553	4802
LENGTH (FT):	328.50	460.17
BEAM (FT):	78.67	90.00
DRAFT (FT):	14.31	16.24
VEHICLE DECK FREEBOARD (FT):	8.85	9.09

DESIGN ENERGY CALCULATION

DESIGN ENERGIES HAVE BEEN CALCULATED IN ACCORDANCE WITH THE UNIFIED FACILITIES CRITERIA (UFC) DESIGN: PIERS AND WHARVES (UFC 4-152-01 24 JANUARY 2017)

	DOLPHIN 1	DOLPHIN 2
DESIGN VESSEL	ISSAQUAH 130	JUMBO MARK II
IMPACT TYPE:	DRIFT	DRIFT
IMPACT ANGLE (DEGREES):	90	90
DESIGN VELOCITY (KNOTS):	0.5	0.5
DESIGN ENERGY (KIP-FT):	100	150

WINGWALLS

TYPE I DESIGN VELOCITY:	0.75 KNOTS
TYPE I DESIGN ENERGY:	140 KIP-FT PER WW OR 280 KIP-FT TOTAL
TYPE III DESIGN VELOCITY:	2.0 KNOTS
TYPE III DESIGN ENERGY:	1550 KIP-FT PER WW OR 3100 KIP-FT TOTAL

STRUCTURAL STEEL NOTES

STEEL PORTIONS OF ALL NON-VEHICULAR STRUCTURES HAVE BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF ANSI/AISC 360-16, SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS.

MATERIALS

ROLLED SHAPES AND PLATES (FOR NON-VEHICULAR STRUCTURES) SHALL CONFORM TO THE REQUIREMENTS OF ASTM A992 GRADE 50 OR ASTM A572 GRADE 50.

MIN. REQ'D. YIELD STRENGTH Fy = 50 KSI

BARS AND ANGLES (FOR NON-VEHICULAR STRUCTURES) SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36.

MIN. REQ'D. YIELD STRENGTH Fy = 36 KSI

RECTANGULAR STRUCTURAL TUBING (HSS RECTANGULAR SECTIONS) SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 500 GRADE B.

MIN. REQ'D. YIELD STRENGTH Fy = 46 KSI

ROUND STRUCTURAL TUBING (HSS ROUND SECTIONS) SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B.

MIN. REQ'D. YIELD STRENGTH Fy = 42 KSI

PIPE (NPS 4 AND OVER) SHALL CONFORM TO THE REQUIREMENTS OF ASTM A139 GRADE D.

MIN. REQ'D. YIELD STRENGTH Fy = 46 KSI

HIGH STRENGTH BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F3125 GR A325, TYPE 1. NUTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A563. WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F436.

ALL OTHER BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A307. NUTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A563. WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F844.

WELDED HEADED STUDS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A108.

MIN. REQ'D. YIELD STRENGTH Fy = 50 KSI

LADDERS SHALL BE FABRICATED AS DESCRIBED BELOW UNLESS NOTED OTHERWISE.
RAILS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A53 GRADE B.

MIN. REQ'D. YIELD STRENGTH Fy = 35 KSI

RUNGS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A706. LADDERS SHALL BE COATED OR GALVANIZED AS SPECIFIED IN THE PLANS AND SPECIAL PROVISIONS.

STEEL RAILING AND GUARDRAIL
RAILS AND POSTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A53 GRADE B.

MIN. REQ'D. YIELD STRENGTH Fy = 35 KSI

EACH RAIL POST ASSEMBLY SHALL BE SHOP-WELDED IN AS LARGE A SECTION AS PRACTICAL TO AVOID MULTIPLE FIELD-WELDED CONNECTIONS.
CONTRACTOR SHALL SUBMIT ASSEMBLY DETAILS FOR APPROVAL BEFORE FABRICATION.
ALL RAILING, SUPPORT POSTS AND THEIR WELDED CONNECTIONS SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A 123 AFTER FABRICATION.

WELDING

ALL WELDING OF STRUCTURAL STEEL FOR NON-VEHICULAR STRUCTURES AND OF HOLLOW STRUCTURAL SECTIONS SHALL CONFORM TO ANSI/AWS D1.1-2020 STRUCTURAL WELDING CODE - STEEL.

WELDED HEADED STUDS SHALL BE INSTALLED BY MEANS OF STUD WELDING EQUIPMENT IN ACCORDANCE WITH ANSI/AWS D1.1-2020 SECTION 7 STUD WELDING.

SEE SECTION 6-03.3(25) FOR FURTHER INFORMATION ON WELDING AND SECTION 6-03.3(25)A AND THE SPECIAL PROVISIONS FOR FURTHER INFORMATION ON WELDING INSPECTION.

WHERE OTHER FILLER METALS AND PROCESSES HAVE NOT BEEN SPECIFIED, USE E70XX ELECTRODES AND THE SUBMERGED ARC WELDING METHOD.

ALL WELDED CONNECTIONS SHALL INCLUDE A SEAL WELD, UNLESS OTHERWISE NOTED.

ALL HOLLOW STRUCTURAL SECTIONS SHALL BE CAPPED AT THEIR ENDS WITH 1/4-INCH PLATES WITH SEAL WELD GROUND SMOOTH, UNLESS OTHERWISE NOTED.

COATING

ALL STEEL SHALL BE COATED IN ACCORDANCE WITH THE SPECIAL PROVISIONS. ALL BOLTS, NUTS, AND WASHERS SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH AASHTO M232.

HOT-DIP GALVANIZED SURFACES ALTERED OR DAMAGED BY CONSTRUCTION OR HANDLING SHALL BE REPAIRED IN ACCORDANCE WITH ASTM A780.

CONCRETE NOTES

CONCRETE PORTIONS OF ALL NON-VEHICULAR STRUCTURES HAVE BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318-19, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE.

MATERIALS

ALL CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF SECTION 6-02.2

THE CLASS OF CONCRETE TO BE USED SHALL BE THE FOLLOWING:
DOLPHIN DIAPHRAGM: 4000

REINFORCEMENT NOTES

MATERIALS

ALL WELDED STEEL REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF ASTM A706.

ALL NON-WELDED STEEL REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60. ASTM A706 REINFORCING STEEL MAY BE SUBSTITUTED FOR ASTM A615 REINFORCING STEEL.

ALL BARS SHALL BE EPOXY-COATED IN ACCORDANCE WITH SECTION 9-07.3.

SPLICES OF REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF ACI 318-19. ALL WELDING SHALL CONFORM TO AWS D1.4-2018 - REINFORCING STEEL AND SECTION 6-02.3(24)E. THE WELDED CONNECTION OF REINFORCEMENT TO STEEL MEMBERS, INCLUDING CHANNELS, PLATES, ETC. SHALL BE DEFINED AS A SPLICE.

ALL BARS SHALL BE BENT COLD UNLESS OTHERWISE PERMITTED BY THE ENGINEER.

UNLESS OTHERWISE SPECIFIED THE MINIMUM CLEAR COVER FROM THE FACE OF CONCRETE TO THE FACE OF ANY REINFORCING BAR SHALL BE AS FOLLOWS:
DIAPHRAGM: 2½ INCH

PILING NOTES

PILING SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THE PILE SCHEDULE AND THE SPECIAL PROVISIONS.

UNDER NORMAL OPERATING CONDITIONS (TYPE 1 EVENTS), PILES IN THE BERTHING STRUCTURES HAVE BEEN DESIGNED FOR AN ALLOWABLE STRESS IN FLEXURE OF 0.90 X YIELD STRESS.

MARINE FENDER NOTES

TYPE 2 CURVED PIPE PILE FENDER DOLPHINS 1 AND 2, WINGWALLS

RATED ENERGY (MINIMUM):	5 KIP-FT/FT² (+/-10%)
REACTION AT RATED ENERGY:	15 KIP/FT² (+/-10%)
DEFLECTION AT RATED ENERGY:	20%

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THOMAS I. BERTUCCI — STATE OF WASHINGTON — 37259 — REGISTERED PROFESSIONAL ENGINEER

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SLIP F DRIVE ON TIE-UP SLIP
WINGWALL AND DOLPHIN
GENERAL NOTES I

S00.04

SHEET 18 OF 124 SHEETS

CHAIN, WIRE ROPE AND HARDWARE NOTES

MATERIAL SPECIFICATIONS AND COATING REQUIREMENTS ARE SHOWN IN THE TABLE TITLED "SPECIFICATIONS FOR CHAIN, WIRE ROPE AND ASSOCIATED HARDWARE".

UNLESS OTHERWISE NOTED, ALL CHAIN, WIRE ROPE AND HARDWARE SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH AASHTO M232.

PRIOR TO ORDERING ANY MATERIALS FOR THE CHAIN ASSEMBLIES, THE CONTRACTOR SHALL VERIFY SIZES AND DIMENSIONS OF ALL CHAINS, SHACKLES, PADEYES, AND ALL OTHER COMPONENTS, SO THAT ALL COMPONENTS ARE COMPATIBLE AND SNUG AND TIGHT CONNECTIONS CAN BE MADE.

WIRE ROPE MINIMUM BREAKING FORCE (AS REDUCED BY 10% FOR GALVANIZING):
- 7/8" DIA.: 39.8T x 90% = 35.8T
- 1" DIA.: 51.7T x 90% = 46.5T
- 1 1/2" DIA.: 114T x 90% = 103T

SPECIFICATIONS FOR CHAIN, WIRE ROPE AND ASSOCIATED HARDWARE

PART	SPECIFICATION	GALVANIZED
STUD LINK CHAIN FOR WINGWALL AND DOLPHIN	ABS PART 2: RULES FOR MATERIALS AND WELDING (2018), CHAPTER 2, SECTION 2, "ANCHOR CHAIN", GRADE 3a	YES
GRADE 100 ALLOY STEEL CHAIN FOR DOLPHIN	ASTM A973	NO
WIRE ROPE FOR TIE-UP LINE	ASTM A1023, RIGHT REGULAR LAY, IWRC, EXTRA IMPROVED PLOW STEEL, 6X26 CLASS 2	YES
BOLT TYPE CHAIN SHACKLE FOR WINGWALL	FS RR-C-271F, TYPE IVB, GRADE A, CLASS 3	YES
6 1/2T BOLT TYPE ANCHOR SHACKLE FOR DOLPHIN	FS RR-C-271F, TYPE IVA, GRADE A, CLASS 3	YES
8 1/2T BOLT TYPE ANCHOR SHACKLE FOR DOLPHIN	FS RR-C-271F, TYPE IVA, GRADE A, CLASS 3	YES
BOLT TYPE ANCHOR SHACKLE FOR TIE-UP LINE	FS RR-C-271F, TYPE IVA, GRADE A, CLASS 3	YES
BOLT TYPE CHAIN SHACKLE FOR LADDER	FS RR-C-271F, TYPE IVB, GRADE A, CLASS 3	YES
U-BOLT	ASTM F1554 GRADE 105	YES
TURNBUCKLE	ASTM F1145, TYPE 1, GRADE 1, CLASS G (JAW AND JAW)	YES
CONNECTING LINE	ASTM A 952, GRADE 80, CLASS CLM	YES
END LINK	FS RR-C-271F, TYPE XV	YES
MASTER LINE	WELDLESS ALLOY STEEL - QUENCHED AND TEMPERED	NO
SPELTER SOCKET	FS RR-S-550F, TYPE B	YES
SWAGING SLEEVE	MS51844O	YES
1/2 INCH MOORING CATCH LINE	3-STRAND POLYESTER ROPE, MINIMUM BREAKING FORCE 5085 POUNDS	N/A

SLIP F PILE SCHEDULE

NOTE:
FOR NOTES SEE S03.01

STRUCTURE	PILE LOCATION	NORTHING	EASTING	OUTSIDE DIAMETER (INCH)	WALL THICKNESS (INCH)	PIPE SOURCE	CUTTING SHOE	ULTIMATE BEARING CAPACITY (KIPS)	ULTIMATE UPLIFT CAPACITY (KIPS)	CUT-OFF ELEVATION (FT)	TIP ELEVATION (FT)	MIN. ORDER LENGTH (FT.)
BENT 1	A	231075.20	1225784.81	24	1	CONTRACTING AGENCY	YES	210	190	10.19	-65.0	79.0
	B	231078.11	1225777.35	24	1	CONTRACTING AGENCY	YES	210	190	10.19	-65.0	79.0
	C	231081.01	1225769.90	24	1	CONTRACTING AGENCY	YES	210	190	10.19	-65.0	79.0
BENT 2	A	231010.91	1225759.76	24	1	CONTRACTOR	YES	210	190	11.44	-57.0	72.0
	B	231013.81	1225752.31	24	1	CONTRACTOR	YES	210	190	11.44	-57.0	72.0
	C	231016.72	1225744.85	24	1	CONTRACTOR	YES	210	190	11.44	-57.0	72.0
BENT 3	A	231004.06	1225756.01	24	1	CONTRACTOR	YES	232	130	10.71	-57.0	71.0
	B	231006.60	1225749.49	24	1	CONTRACTOR	YES	232	130	10.71	-57.0	71.0
	C	231009.14	1225742.97	24	1	CONTRACTING AGENCY	YES	232	130	10.71	-57.0	71.0
BENT 4 TOWERS	A	230966.45	1225745.66	36	1	CONTRACTING AGENCY	YES	260	50	43.0	-58.0	104.0
	B	230974.44	1225725.16	36	1	CONTRACTING AGENCY	YES	260	50	43.0	-58.0	104.0
LT. WINGWALL	A	230954.68	1225748.42	30	1	CONTRACTOR	YES	——	——	18.0	-55.0	76.0
	B	230957.05	1225758.14	30	1	CONTRACTOR	YES	——	——	18.0	-55.0	76.0
	C	230945.39	1225760.98	30	1	CONTRACTOR	YES	——	——	18.0	-55.0	76.0
	D	230943.02	1225751.27	30	1	CONTRACTOR	YES	——	——	18.0	-55.0	76.0
	FENDER PILE	——	——	36	1	CONTRACTING AGENCY	YES	——	——	27.0	-58.0	88.0
	FENDER PILE	——	——	36	1	CONTRACTING AGENCY	YES	——	——	27.0	-58.0	88.0
RT. WINGWALL	A	230967.64	1225715.16	30	1	CONTRACTOR	YES	——	——	18.0	-52.0	73.0
	B	230975.96	1225709.61	30	1	CONTRACTOR	YES	——	——	18.0	-52.0	73.0
	C	230969.30	1225699.63	30	1	CONTRACTOR	YES	——	——	18.0	-52.0	73.0
	D	230960.98	1225705.18	30	1	CONTRACTOR	YES	——	——	18.0	-52.0	73.0
	FENDER PILE	——	——	36	1	CONTRACTING AGENCY	YES	——	——	27.0	-55.0	85.0
	FENDER PILE	——	——	36	1	CONTRACTING AGENCY	YES	——	——	27.0	-55.0	85.0
RT. INTERMEDIATE DOLPHIN	A	230803.85	1225620.86	30	¾	CONTRACTING AGENCY	YES	——	——	27.0	-70.0	100.0
	B	230806.46	1225616.59	30	¾	CONTRACTING AGENCY	YES	——	——	27.0	-70.0	100.0
	C	230799.03	1225612.05	30	¾	CONTRACTING AGENCY	YES	——	——	27.0	-70.0	100.0
	D	230796.42	1225616.32	30	¾	CONTRACTING AGENCY	YES	——	——	27.0	-70.0	100.0
	FENDER PILE	——	——	36	1	CONTRACTING AGENCY	YES	——	——	27.0	-50.0	80.0
RT. OUTER DOLPHIN	A	230720.96	1225591.21	30	¾	CONTRACTING AGENCY	YES	——	——	27.0	-65.0	95.0
	B	230723.56	1225586.94	30	¾	CONTRACTOR	YES	——	——	27.0	-65.0	95.0
	C	230716.13	1225582.40	30	¾	CONTRACTOR	YES	——	——	27.0	-65.0	95.0
	D	230713.53	1225586.67	30	¾	CONTRACTOR	YES	——	——	27.0	-65.0	95.0
	FENDER PILE	——	——	36	1	CONTRACTING AGENCY	YES	——	——	27.0	-50.0	80.0
FLOAT PILES	A	231060.92	1225822.00	EXISTING 18 SPIRAL WELDED	½	CONTRACTING AGENCY	YES	——	——	32.0	-45.0	77.0
	B	231017.27	1225827.63	EXISTING 18 SPIRAL WELDED	½	CONTRACTING AGENCY	YES	——	——	20.0	-45.0	65.0
	C	230973.64	1225833.27	EXISTING 18 SPIRAL WELDED	½	CONTRACTING AGENCY	YES	——	——	20.0	-45.0	65.0

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PILE SCHEDULE

S03.00
SHEET 20 OF 124 SHEETS

NOTES:

1. ALL CONTRACTOR-FURNISHED PILING SHALL HAVE THE FOLLOWING MIN. YIELD STRENGTHS:

24×1	50 KSI
30×¾	60 KSI
30×1	50 KSI

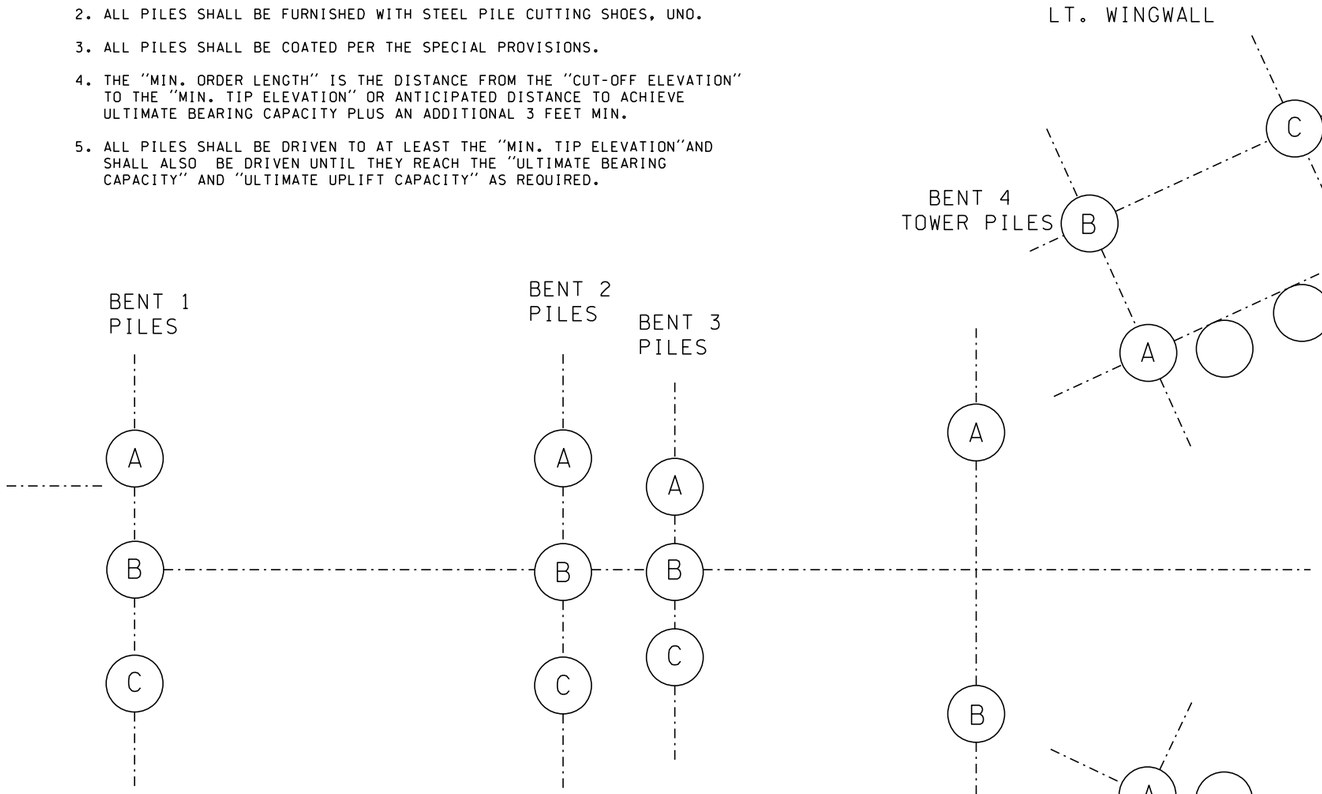
   SEE SPECIAL PROVISIONS FOR CONTRACTING AGENCY-FURNISHED PILING AND FOR ADDITIONAL REQUIREMENTS.

2. ALL PILES SHALL BE FURNISHED WITH STEEL PILE CUTTING SHOES, UNO.

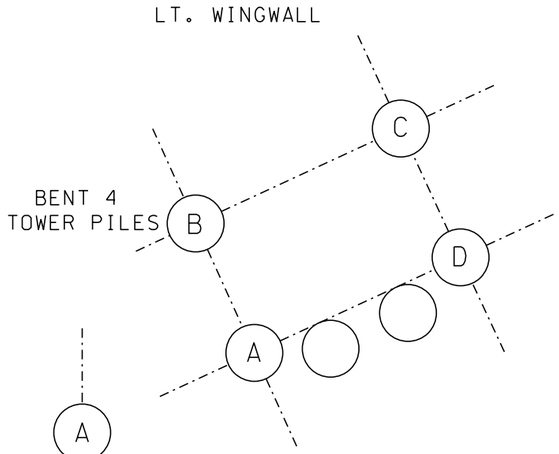
3. ALL PILES SHALL BE COATED PER THE SPECIAL PROVISIONS.

4. THE "MIN. ORDER LENGTH" IS THE DISTANCE FROM THE "CUT-OFF ELEVATION" TO THE "MIN. TIP ELEVATION" OR ANTICIPATED DISTANCE TO ACHIEVE ULTIMATE BEARING CAPACITY PLUS AN ADDITIONAL 3 FEET MIN.

5. ALL PILES SHALL BE DRIVEN TO AT LEAST THE "MIN. TIP ELEVATION"AND SHALL ALSO BE DRIVEN UNTIL THEY REACH THE "ULTIMATE BEARING CAPACITY" AND "ULTIMATE UPLIFT CAPACITY" AS REQUIRED.



PILE LAYOUT



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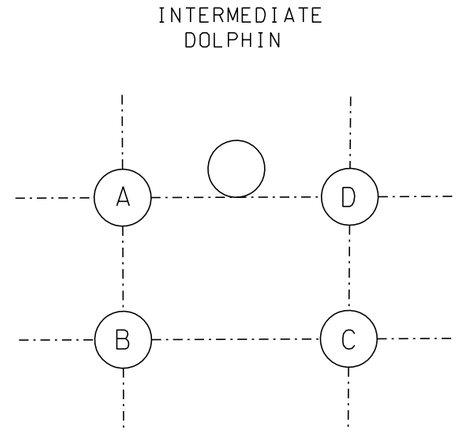
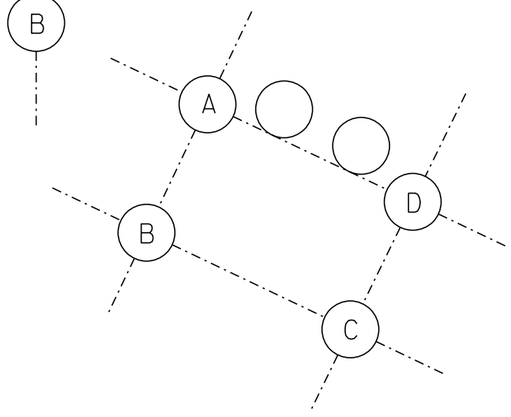
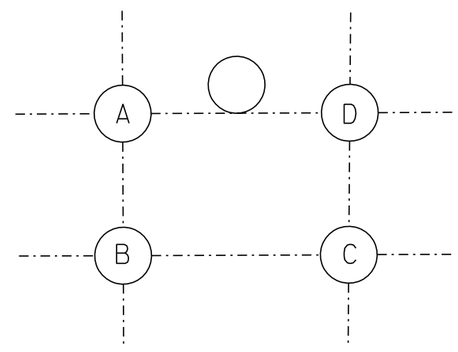




RT.WINGWALL



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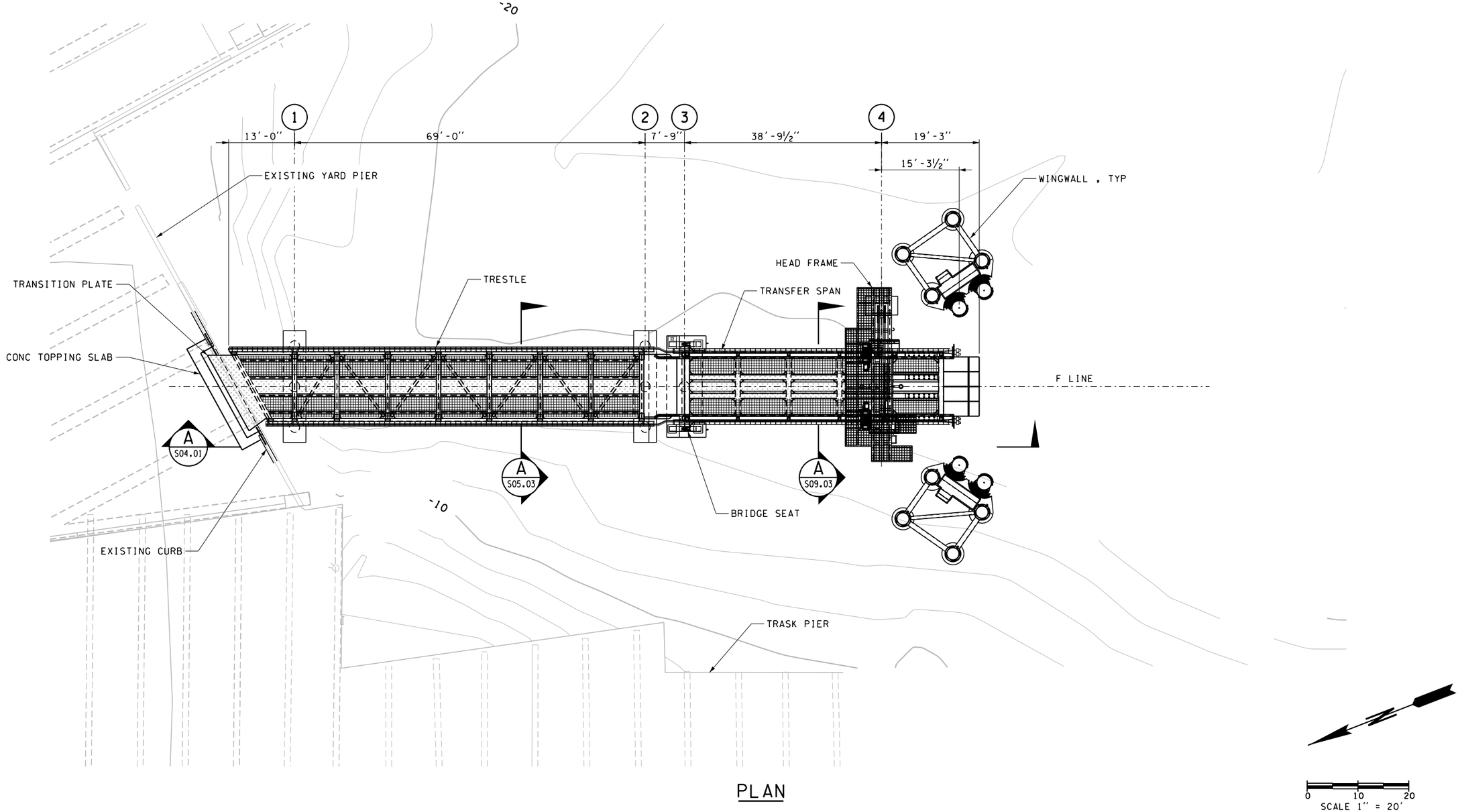
SLIP F DRIVE ON TIE-UP SLIP

PILE LAYOUT

S03.01

SHEET 21 OF 124 SHEETS



PLAN

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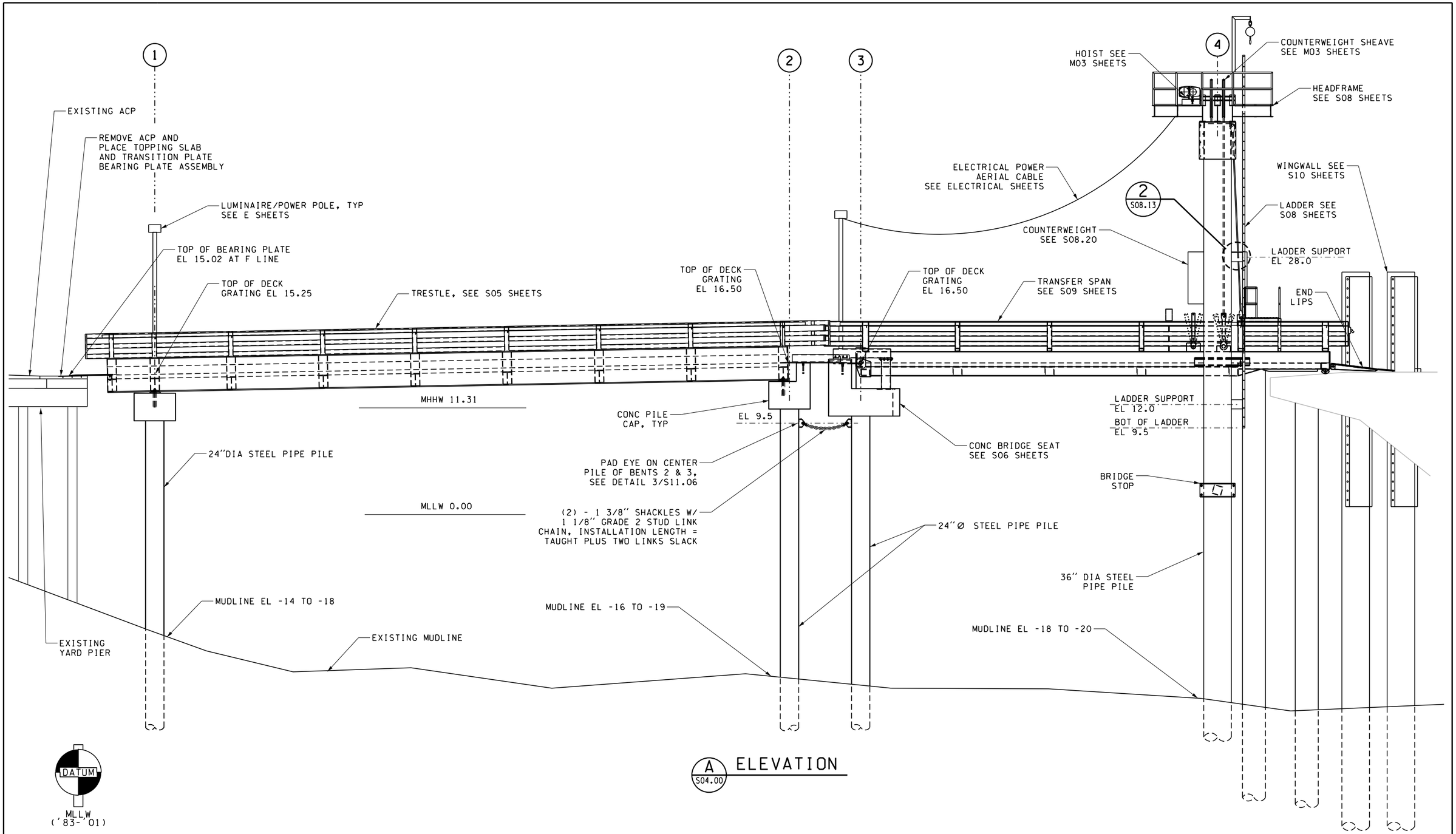
TRESTLE & TRANSFER SPAN PLAN

S04.00

SHEET 22 OF 124 SHEETS



A S04.00 ELEVATION

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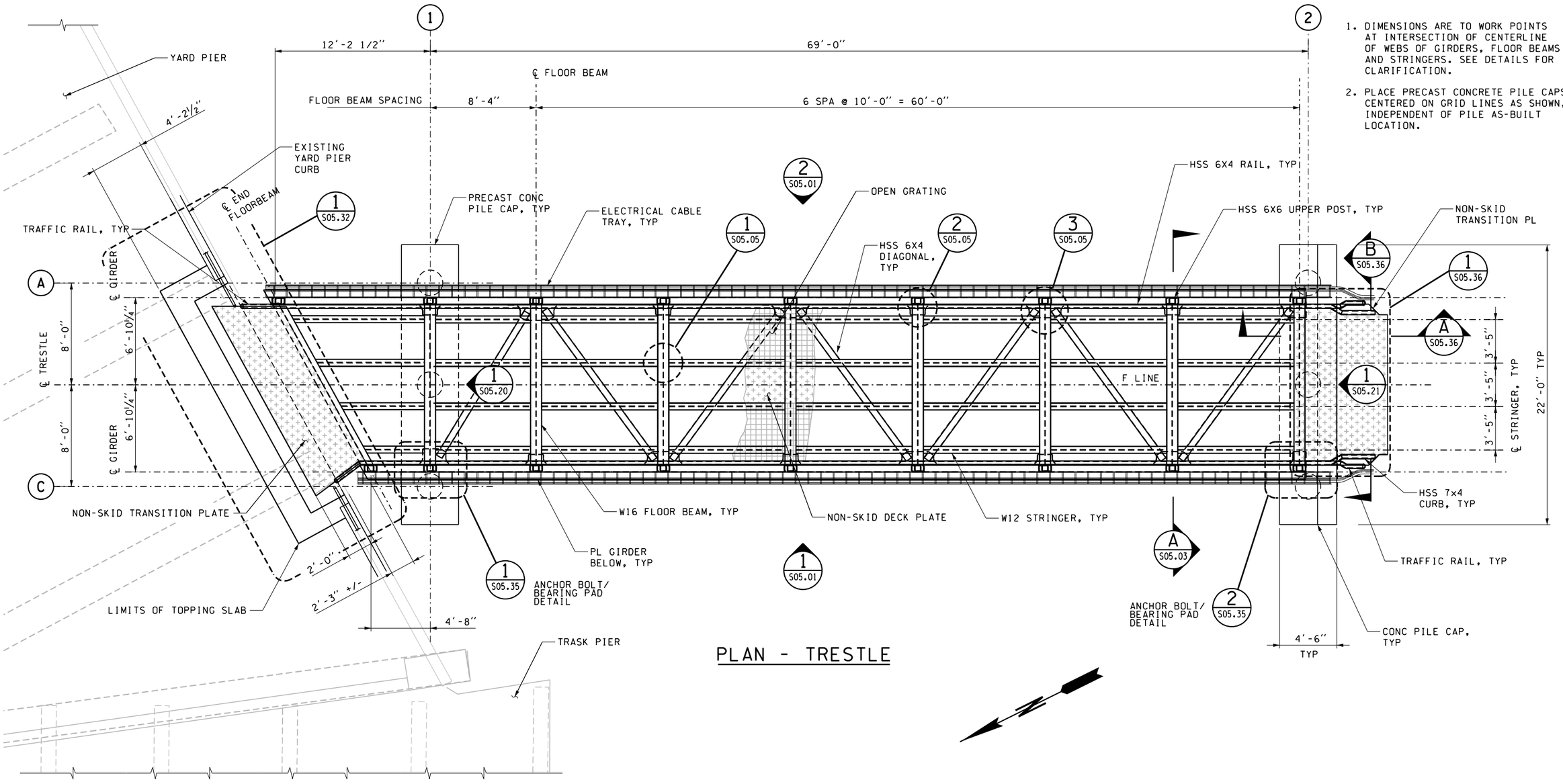
TRESTLE & TRANSFER SPAN ELEVATION

S04.01

SHEET 23 OF 124 SHEETS

NOTES

1. DIMENSIONS ARE TO WORK POINTS AT INTERSECTION OF CENTERLINE OF WEBS OF GIRDERS, FLOOR BEAMS AND STRINGERS. SEE DETAILS FOR CLARIFICATION.
2. PLACE PRECAST CONCRETE PILE CAPS CENTERED ON GRID LINES AS SHOWN, INDEPENDENT OF PILE AS-BUILT LOCATION.



PLAN - TRESTLE

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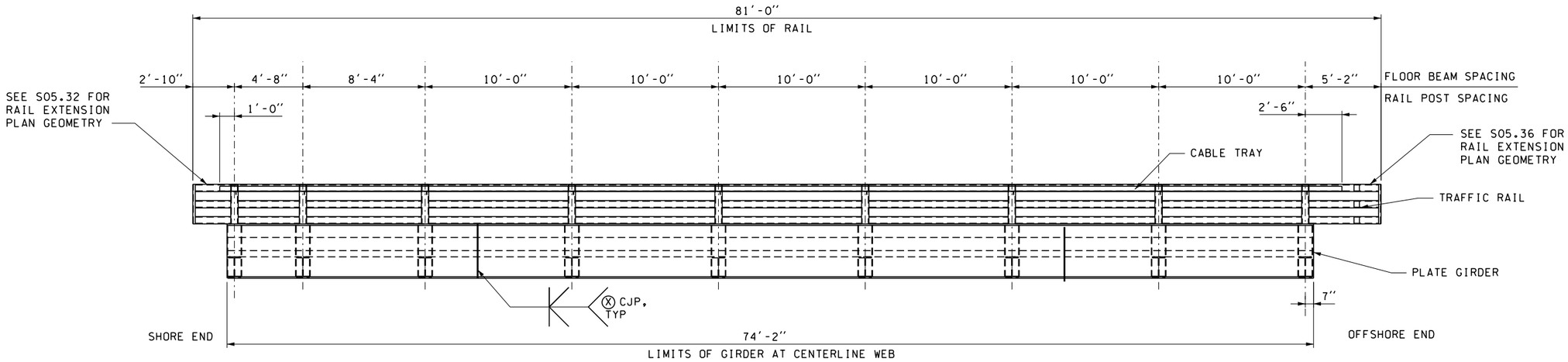
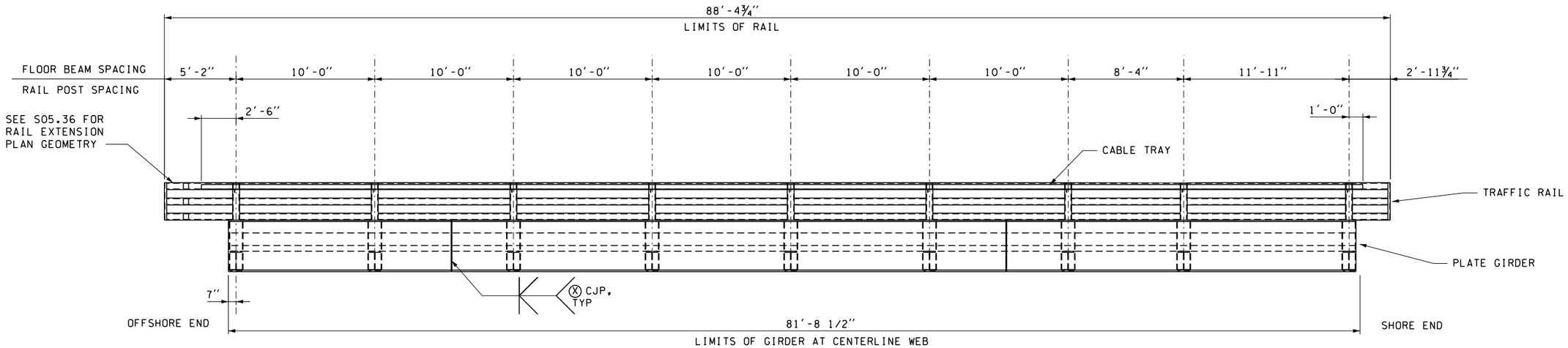
TRESTLE ASSEMBLY PLAN

S05.00

SHEET 24 OF 124 SHEETS



1 S05.00 ELEVATION - RIGHT GIRDER (LOOKING EAST)



2 S05.00 ELEVATION - LEFT GIRDER (LOOKING WEST)

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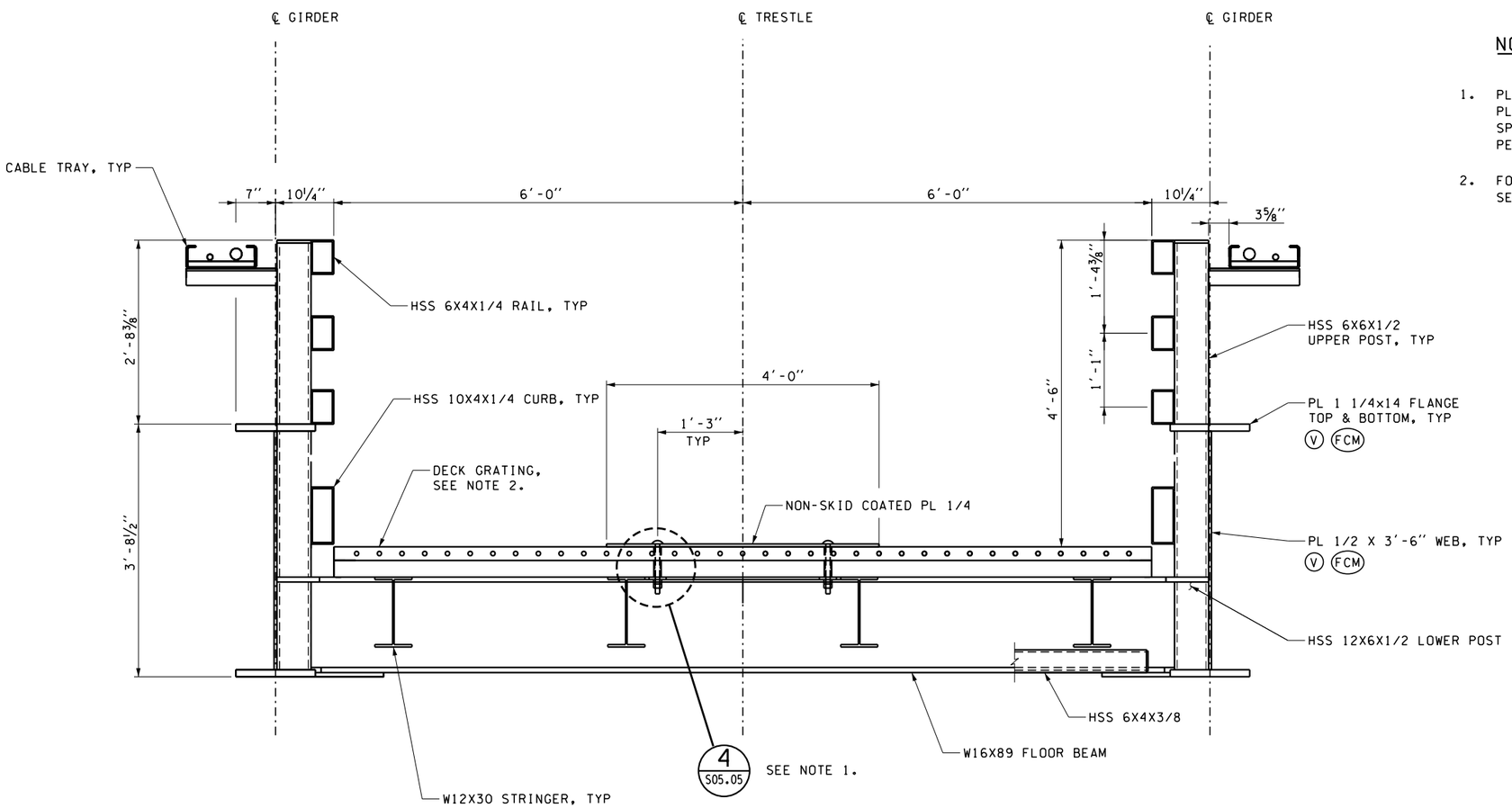
TRESTLE EXTERIOR ELEVATIONS

S05.01

SHEET 25 OF 124 SHEETS



A S05.00 SECTION - TRESTLE

NOTES

1. PLACE BOLTS AT TRANSVERSE SPACING SHOWN. PLACE BOLTS LONGITUDINALLY AT 2'-0'' MAX SPACING. PROVIDE A MINIMUM OF FOUR BOLTS PER INDIVIDUAL BAR GRATING PANEL.
2. FOR DECK GRATING REQUIREMENTS SEE S00.03. SEE S05.06 FOR CONNECTION TO SUPPORT DETAILS.

FILE NAME: PW: WSF/Eagle Harbor/17w062SlipFtoDriveOn/PE/PE_PD/CAD/_Contract_Plans/100%17w062s05_03.dlv						
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SUBMITTAL DATE: 1/11/22	morin					
DESIGNED BY: R. JENS	1/18/2022				*-WA-***	
ENTERED BY: M. ENOS	1/18/2022				REGION NO. 10 / STATE WASH	
CHECKED BY: J. KILBORN	1/18/2022				JOB NUMBER 17W062	
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:					CONTRACT NO. 00****	
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KILBORN — STATE OF WASHINGTON — 36260 — PROFESSIONAL ENGINEER

SEE CT01.00

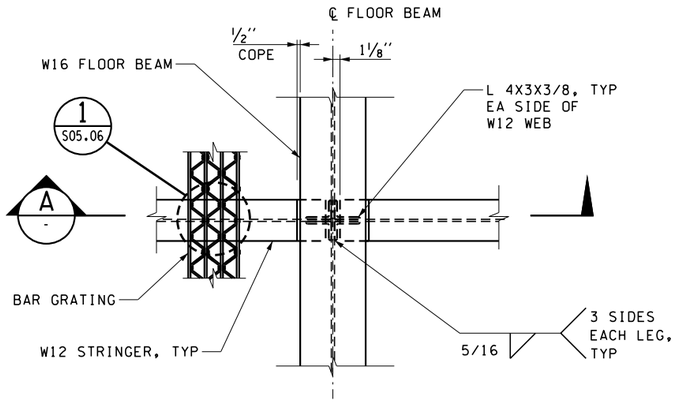
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

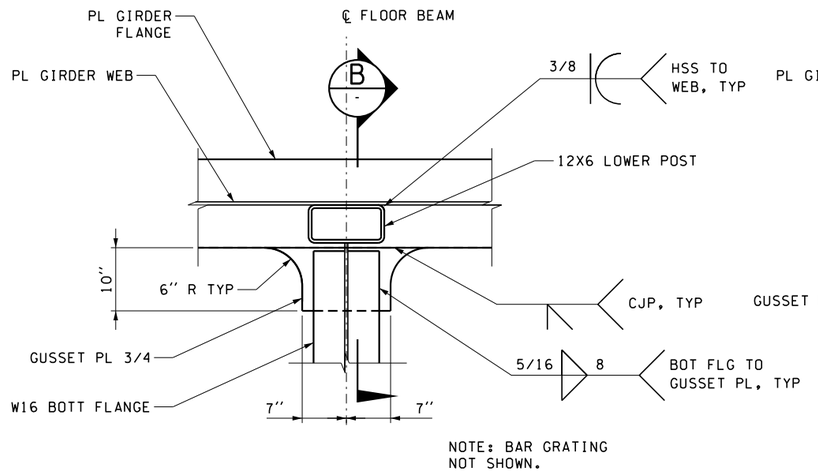
TRESTLE SECTIONS I

S05.03

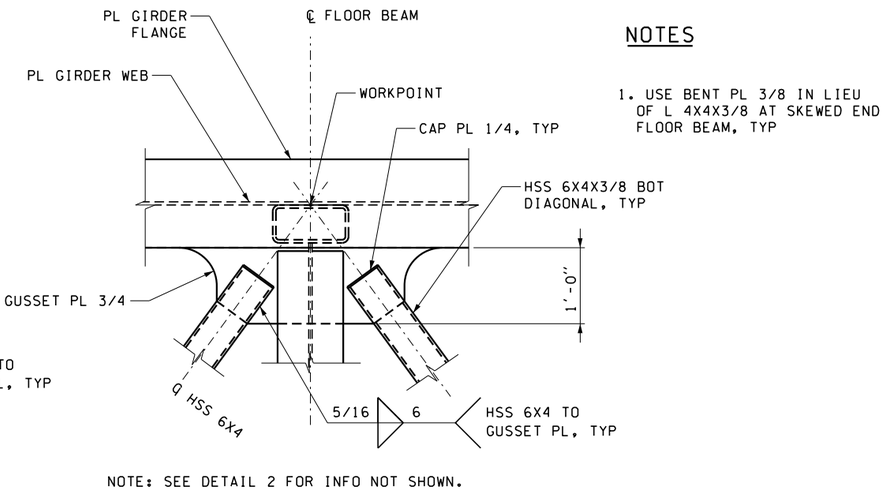
SHEET 26 OF 124 SHEETS



1 S05.00 DETAIL - STRINGER CONN



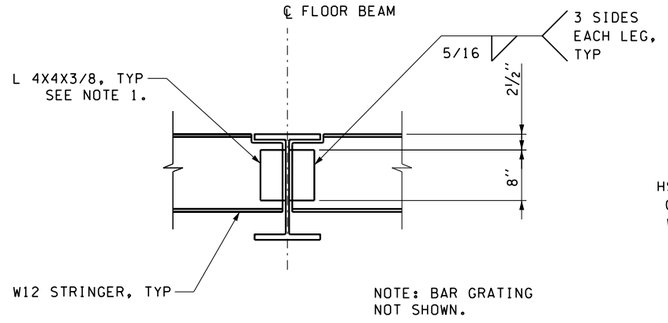
2 S05.00 DETAIL - FLOOR BEAM CONN



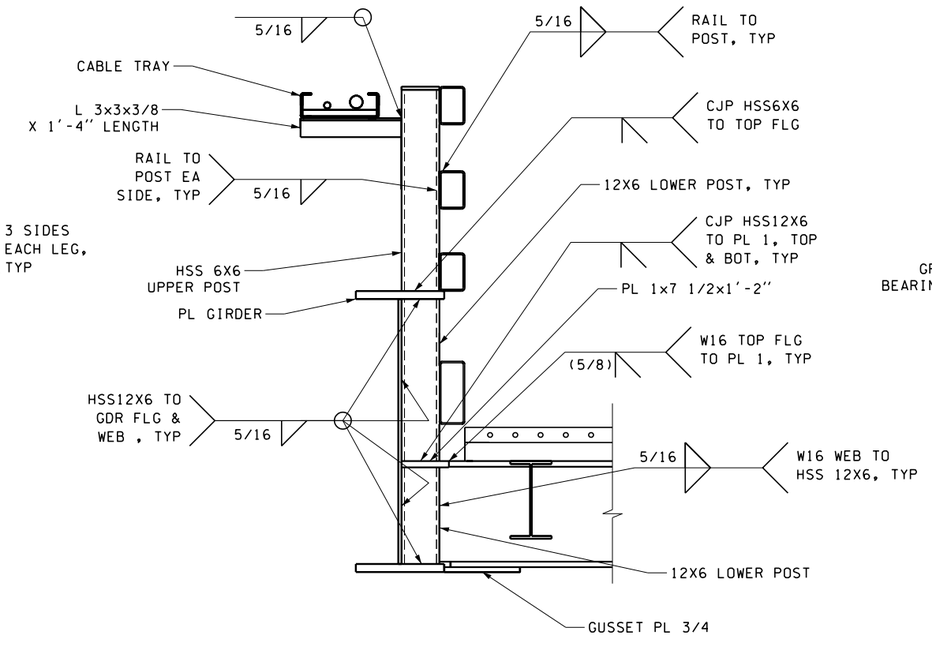
NOTES

1. USE BENT PL 3/8 IN LIEU OF L 4X4X3/8 AT SKEWED END FLOOR BEAM, TYP

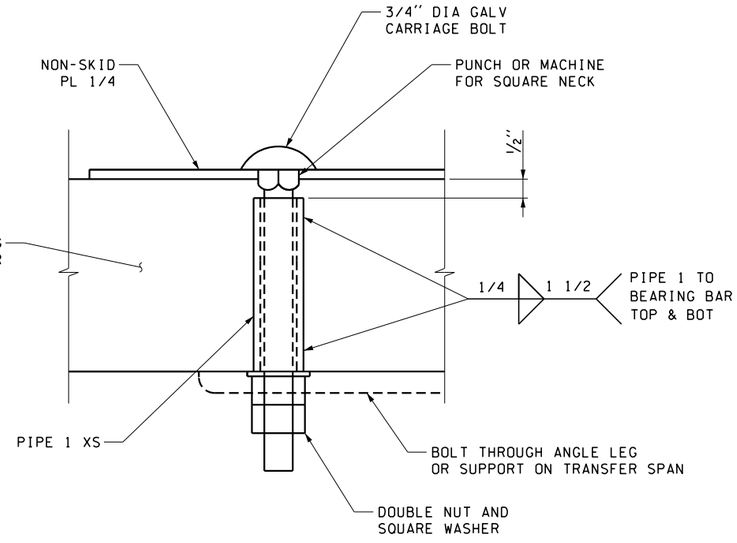
3 S05.00 DETAIL - AT BOT DIAGONALS



A - SECTION - STRINGERS



B - SECTION - AT FLOOR BEAM



4 S05.03 DETAIL - NON-SKID PL CONN

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DESIGNED BY: R. JENS	1/18/2022					REGION NO. STATE
ENTERED BY: M. ENOS	1/18/2022					10 WASH
CHECKED BY: M. WRAY	1/18/2022					JOB NUMBER
MAR PROJ ENGR: T. CASTOR	1/18/2022					17W062
DGN ENGR MNGR:						CONTRACT NO.
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		00****

JEFFREY PAUL KITTERMAN — STATE OF WASHINGTON — 36260 — PROFESSIONAL ENGINEER

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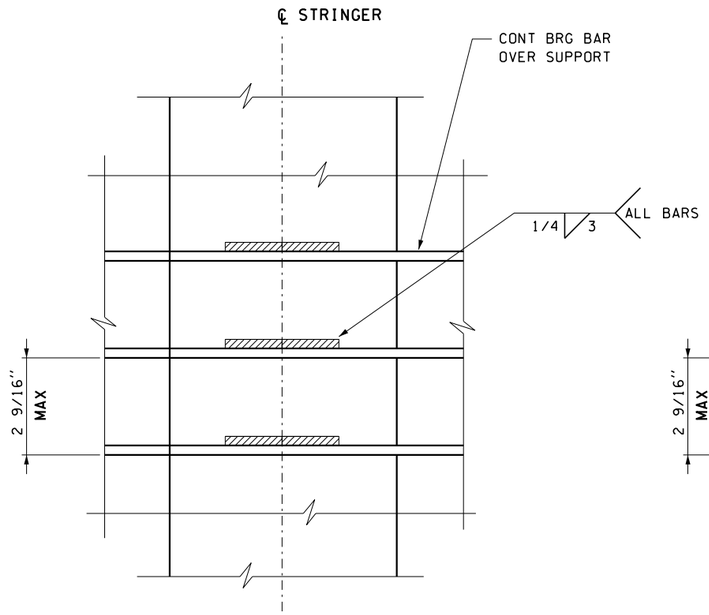
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

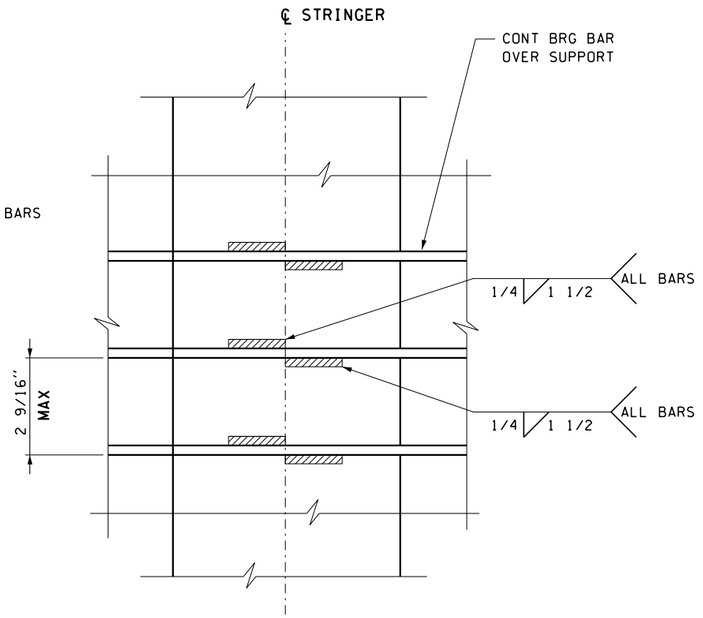
TRESTLE DETAILS

S05.05

SHEET 27 OF 124 SHEETS

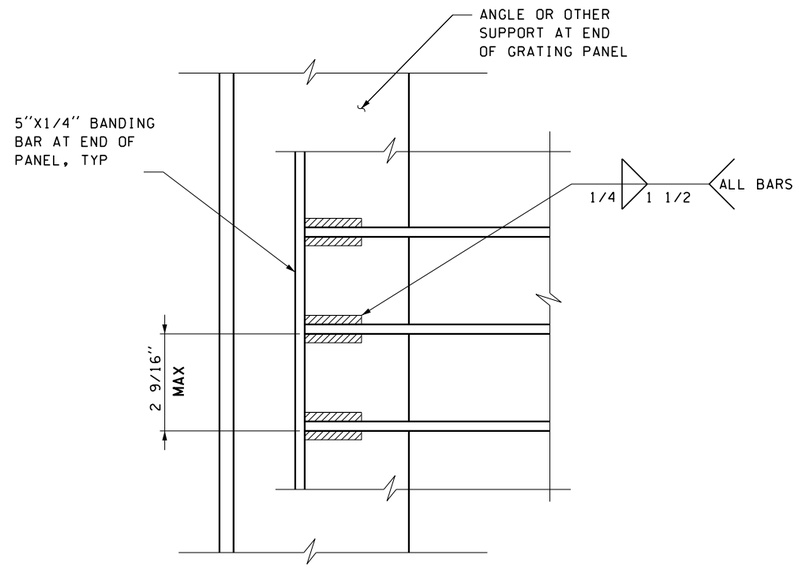


ALT 1



ALT 2

1 S05.05 DETAIL



2 S05.05 DETAIL

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ENTERED BY: J. KILBORN	1/18/2022					
CHECKED BY: M. WRAY	1/18/2022					JOB NUMBER 17W062
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						CONTRACT NO. 00****
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KILBORN — STATE OF WASHINGTON — 30260 — PROFESSIONAL ENGINEER

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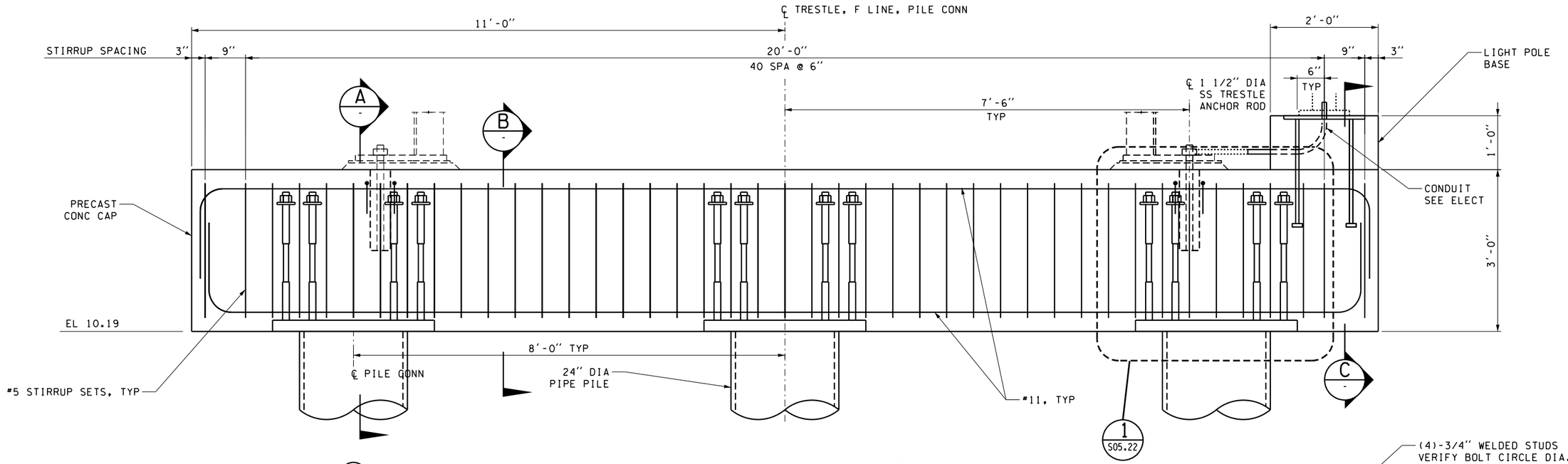
WASHINGTON STATE FERRIES

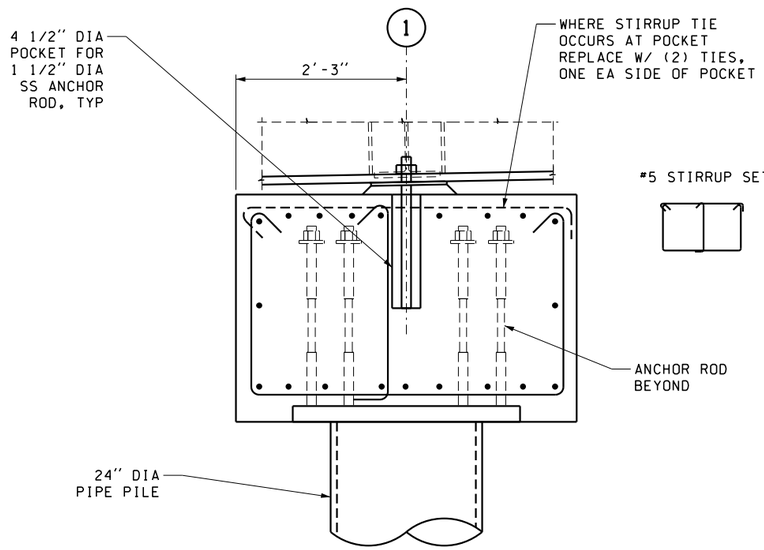
SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

TRESTLE GRATING DETAILS

S05.06

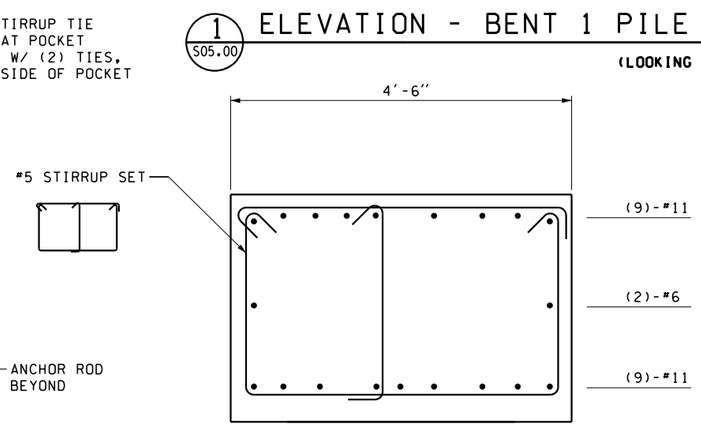
SHEET 28 OF 124 SHEETS





A SECTION

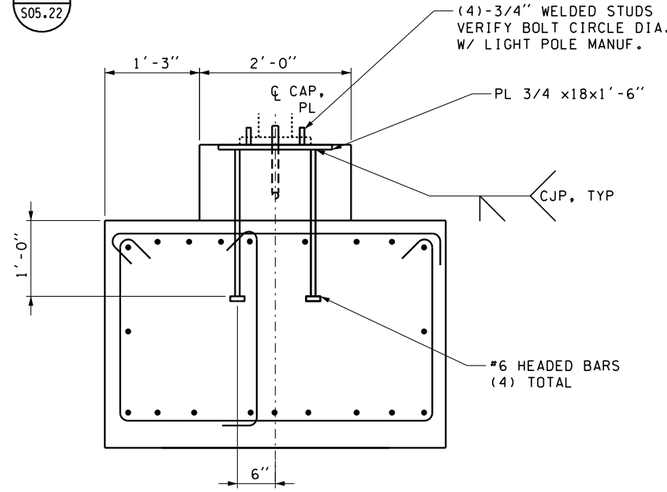
NOTE: SEE SECTION B FOR DETAILS NOT SHOWN.



1 S05.00 ELEVATION - BENT 1 PILE CAP

(LOOKING ONSHORE)

B SECTION



NOTE: SEE SECTION B FOR DETAILS NOT SHOWN.

C SECTION

DATUM

MLLW ('83-'01)

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DESIGNED BY: J. LINKE	1/18/2022					REGION NO. 10 / STATE WASH
ENTERED BY: M. ENOS	1/18/2022					JOB NUMBER 17W062
CHECKED BY: M. WRAY	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KITTOK, STATE OF WASHINGTON, 30260, PROFESSIONAL ENGINEER

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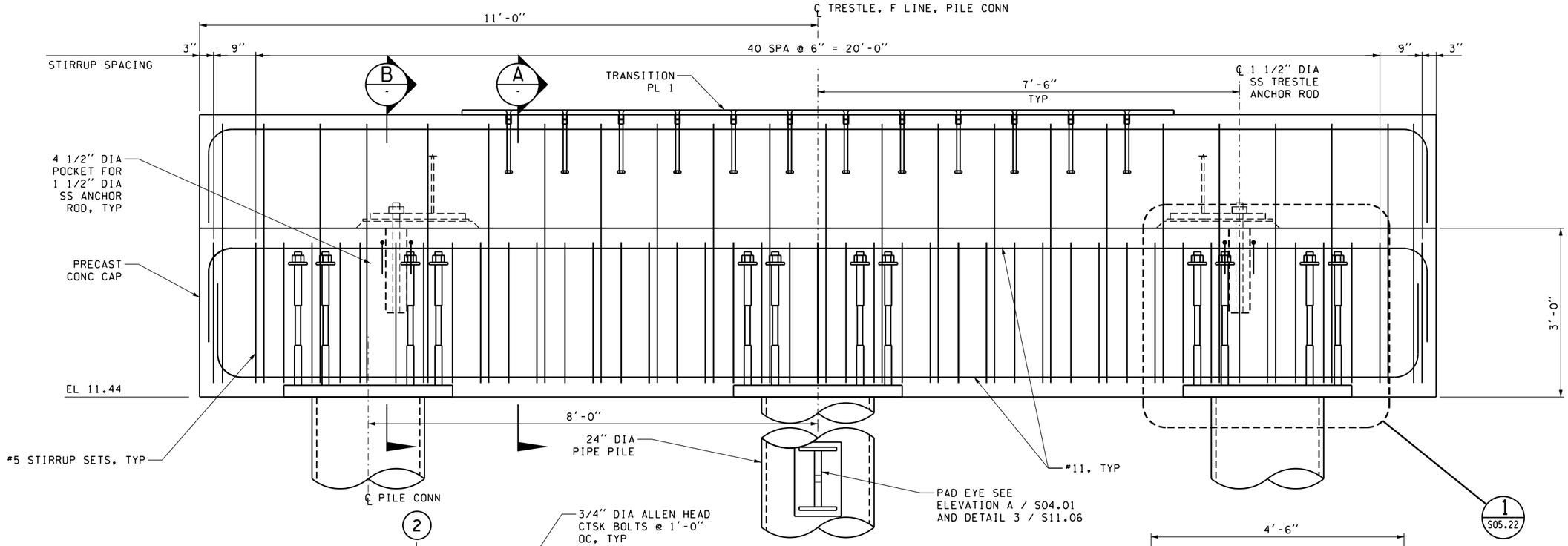
Washington State Department of Transportation
WASHINGTON STATE FERRIES

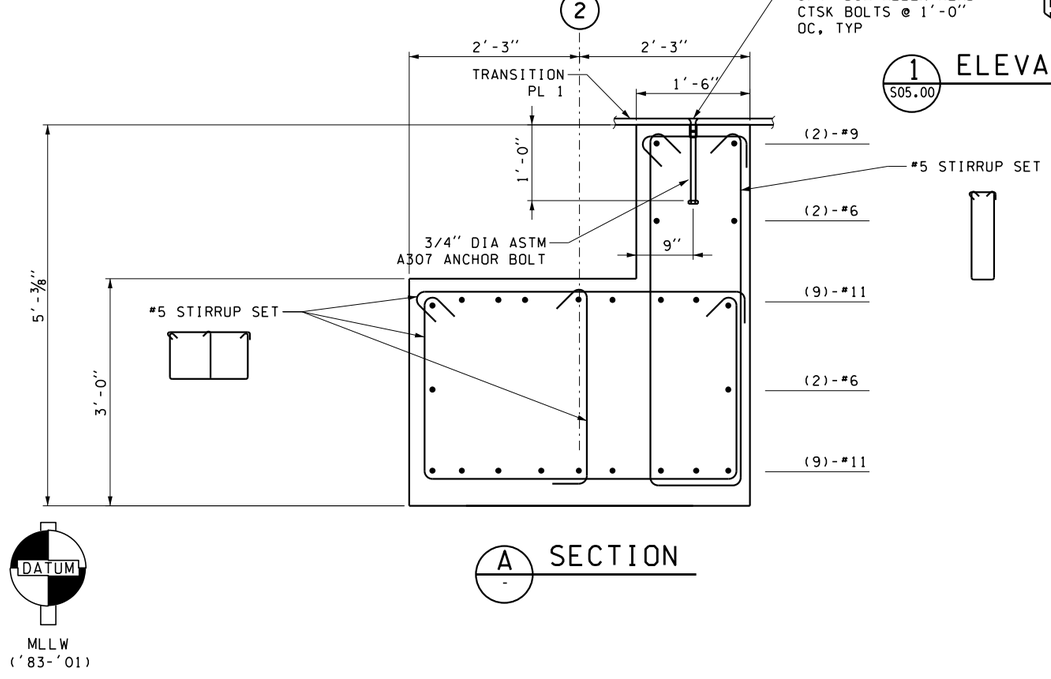
SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

PRECAST PILE CAP - BENT 1

S05.20

SHEET 29 OF 124 SHEETS

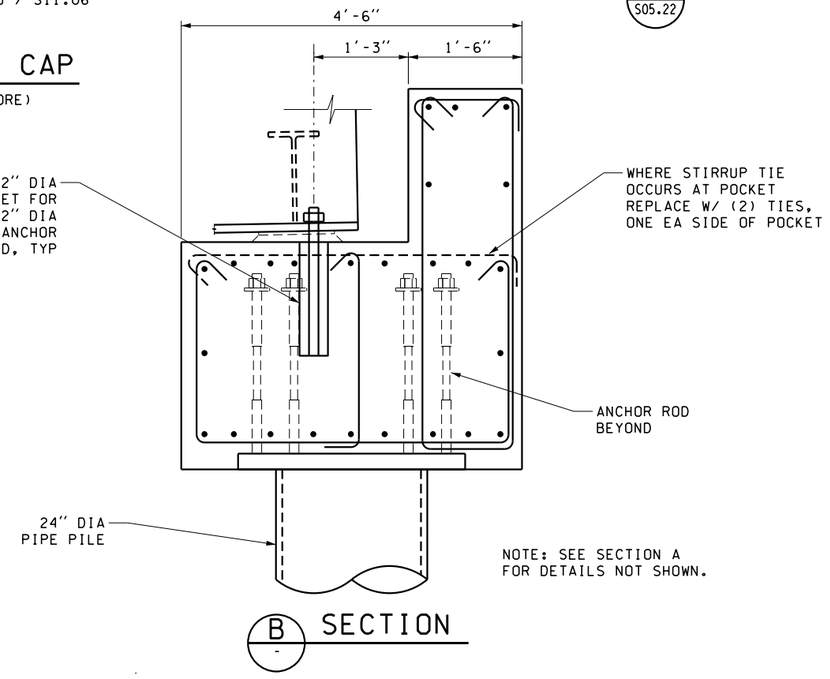




1 S05.00 ELEVATION - BENT 2 PILE CAP

(LOOKING ONSHORE)

A - SECTION



B - SECTION

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ENTERED BY: M. ENOS	1/18/2022					JOB NUMBER 17W062
CHECKED BY: M. WRAY	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KLEBBA — STATE OF WASHINGTON — 30260 — REGISTERED PROFESSIONAL ENGINEER — STRUCTURAL ENGINEER

SEE CT01.00

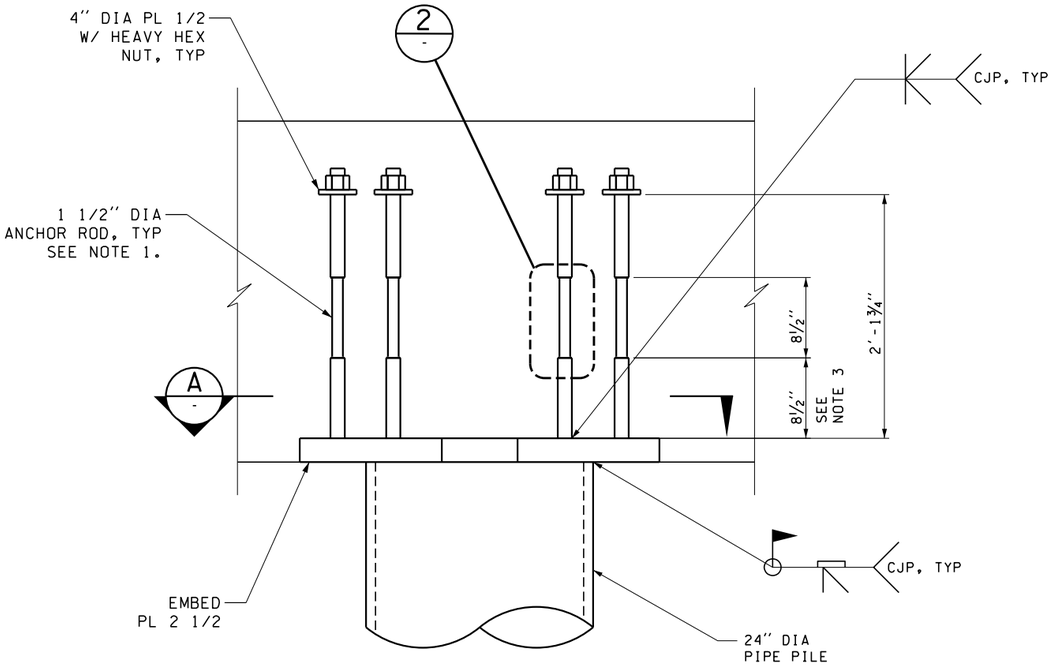
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

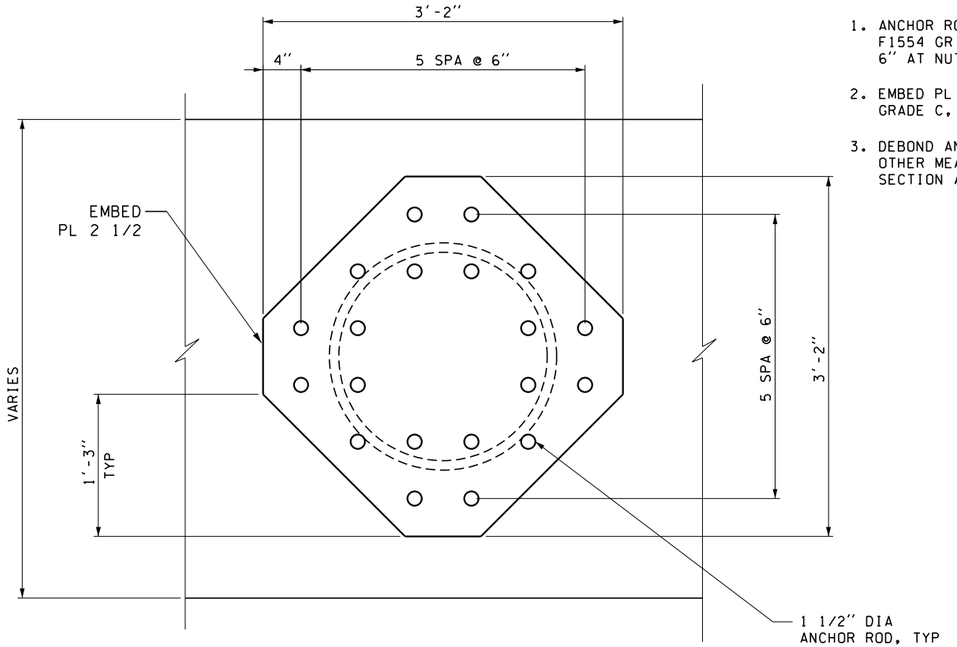
PRECAST PILE CAP - BENT 2

S05.21

SHEET 30 OF 124 SHEETS



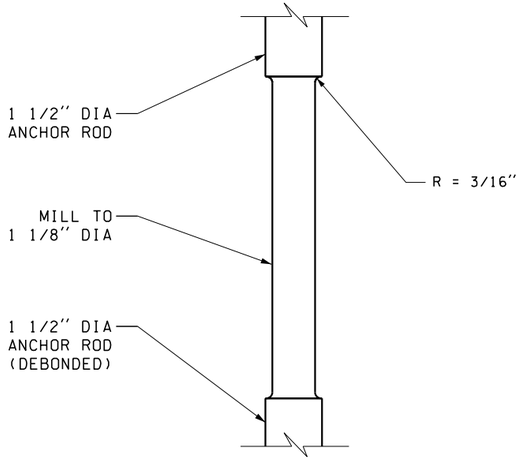
1 S05.20 ELEVATION



A - SECTION

NOTES

1. ANCHOR RODS SHALL BE ASTM F1554 GR 55 WELDABLE. THREAD 6" AT NUT END ONLY.
2. EMBED PL SHALL BE ASTM A633 GRADE C, FY = 50 KSI
3. DEBOND ANCHOR ROD, BY SLEEVE OR OTHER MEANS, BELOW MILLED DIAMETER SECTION AS SHOWN.



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DESIGNED BY: J. LINKE	1/18/2022					REGION NO. 10 / STATE WASH
ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062
CHECKED BY: M. WRAY	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KILDALL — STATE OF WASHINGTON — 30260 — PROFESSIONAL ENGINEER

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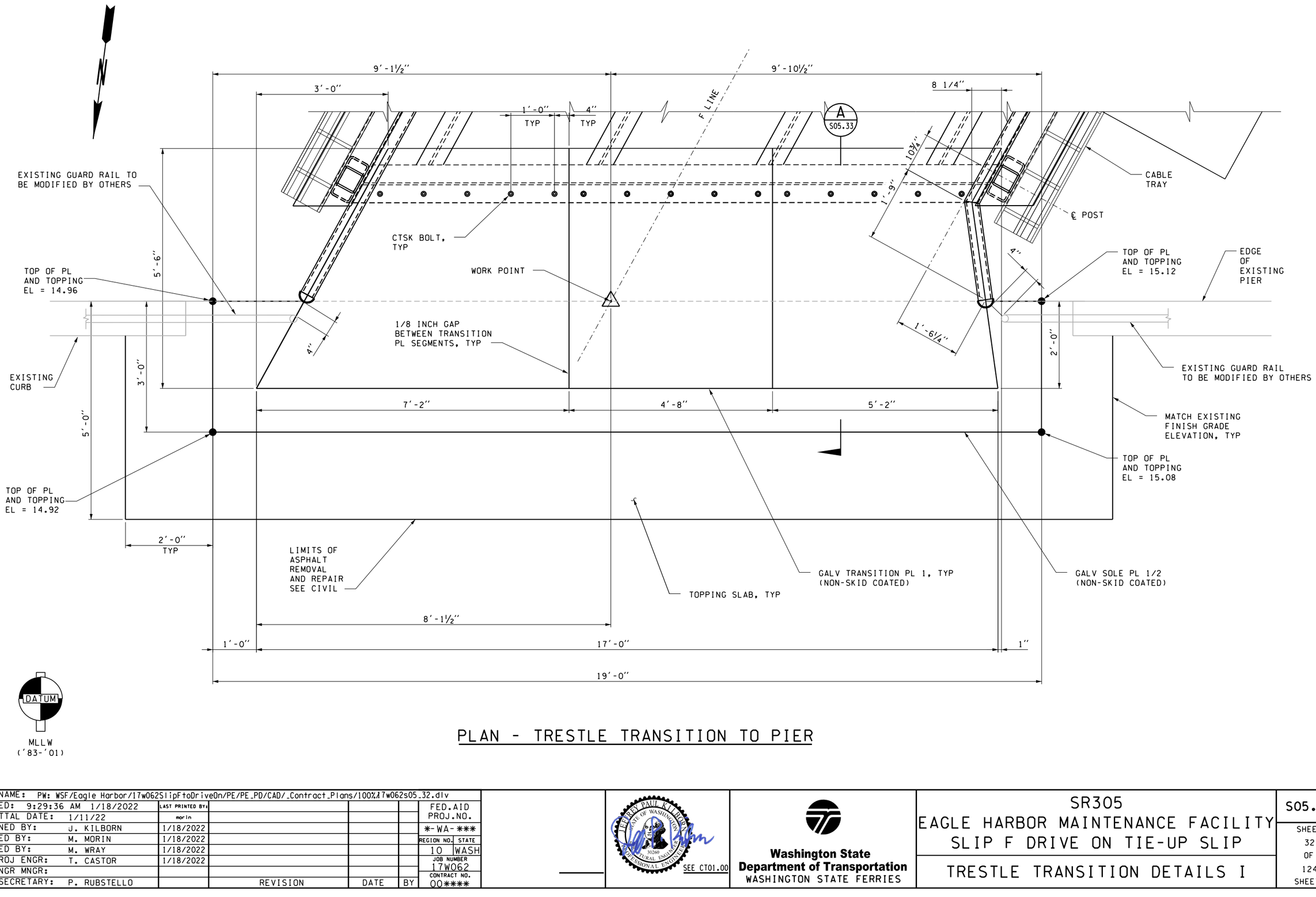
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

PRECAST PILE CAP DETAILS I

S05.22

SHEET 31 OF 124 SHEETS



PLAN - TRESTLE TRANSITION TO PIER

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ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062
CHECKED BY: M. WRAY	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KILBORN — STATE OF WASHINGTON — 30260 — PROFESSIONAL ENGINEER

SEE CT01.00

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

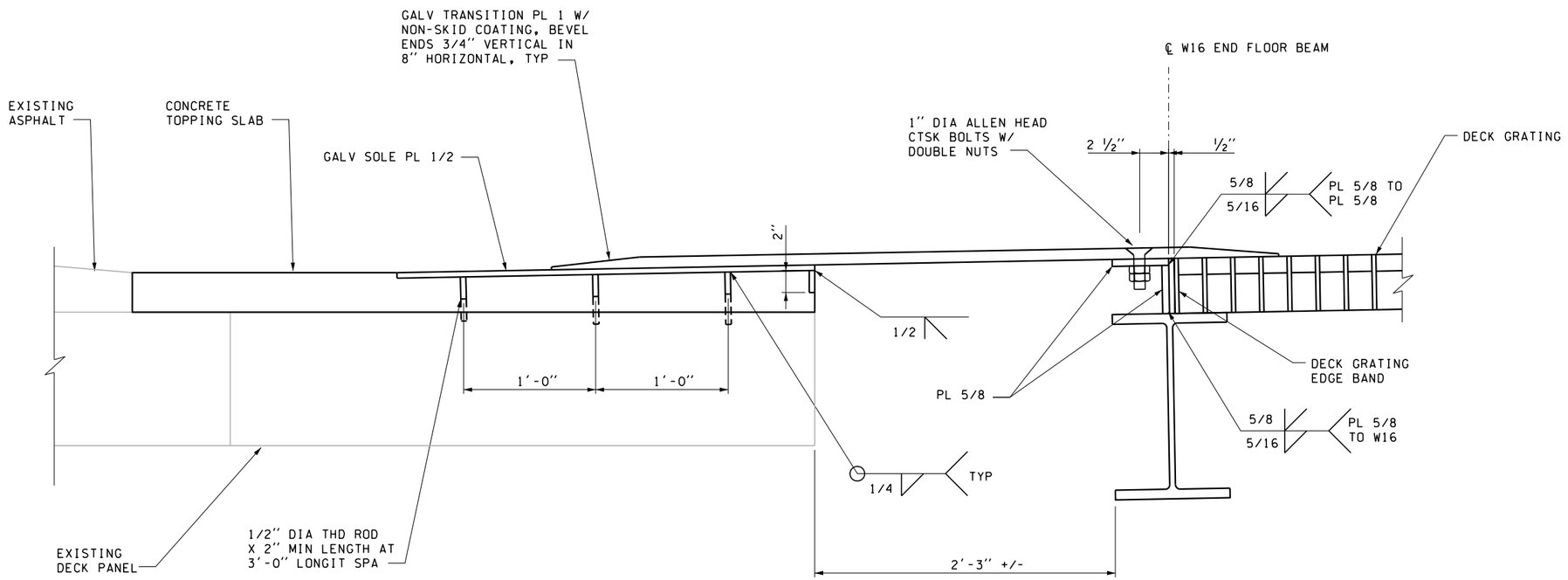
TRESTLE TRANSITION DETAILS I

S05.32

SHEET 32 OF 124 SHEETS

NOTES

1. THREADED ROD MAY BE EXTENDED AND EPOXY-GROUTED 1" INTO EXISTING DECK PANEL TO ACCOMMODATE PLACEMENT OF THE SOLE PLATE AND NON-SHRINK GROUT.
2. TRANSITION PLATE AND SOLE PLATE SHALL BE TEMPORARILY ATTACHED IN UNIFORM BEARING DURING PLACEMENT OF GROUT BENEARTH THE SOLE PLATE.



A S05.32 SECTION

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ENTERED BY: M. MORIN	1/18/2022					REGION NO. STATE
CHECKED BY: M. WRAY	1/18/2022					10 WASH
MAR PROJ ENGR: T. CASTOR	1/18/2022					JOB NUMBER 17W062
DGN ENGR MNGR:						CONTRACT NO. 00****
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KILBORN — STATE OF WASHINGTON — 30260 — PROFESSIONAL ENGINEER

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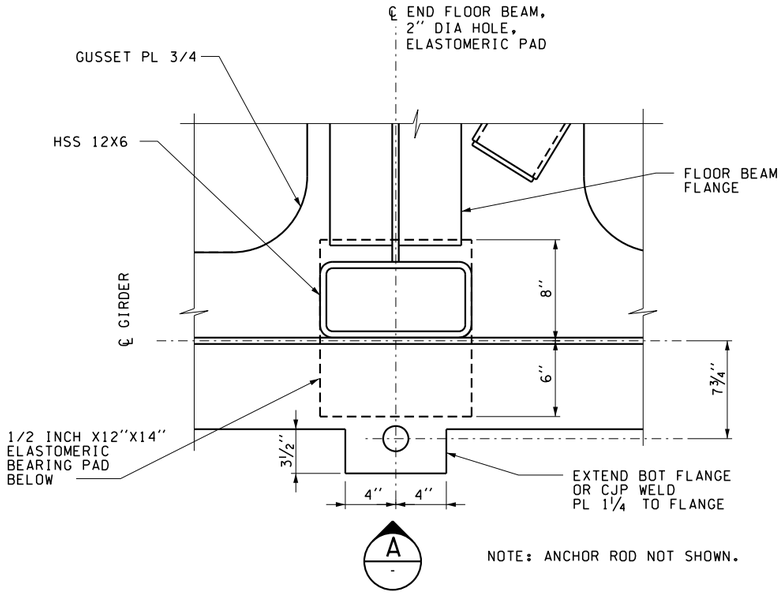
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

TRESTLE TRANSITION DETAILS II

S05.33

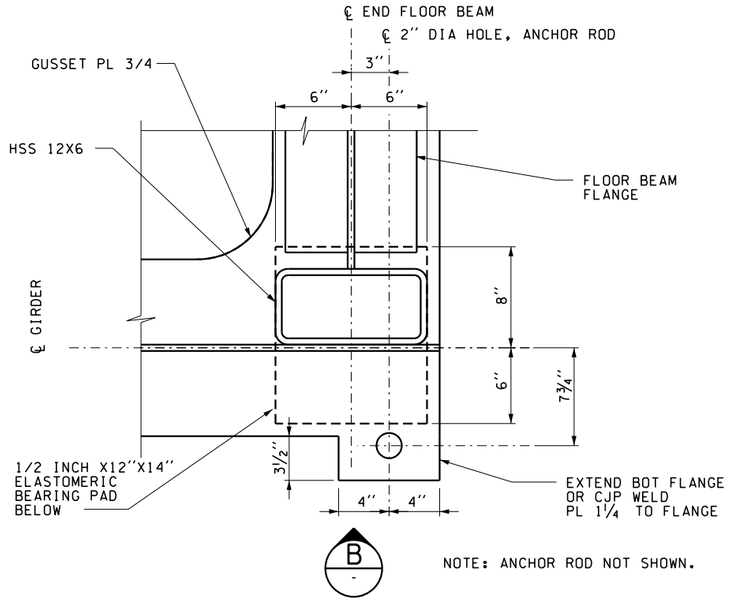
SHEET 33 OF 124 SHEETS



A

NOTE: ANCHOR ROD NOT SHOWN.

1 S05.00 DETAIL



B

NOTE: ANCHOR ROD NOT SHOWN.

2 S05.00 DETAIL

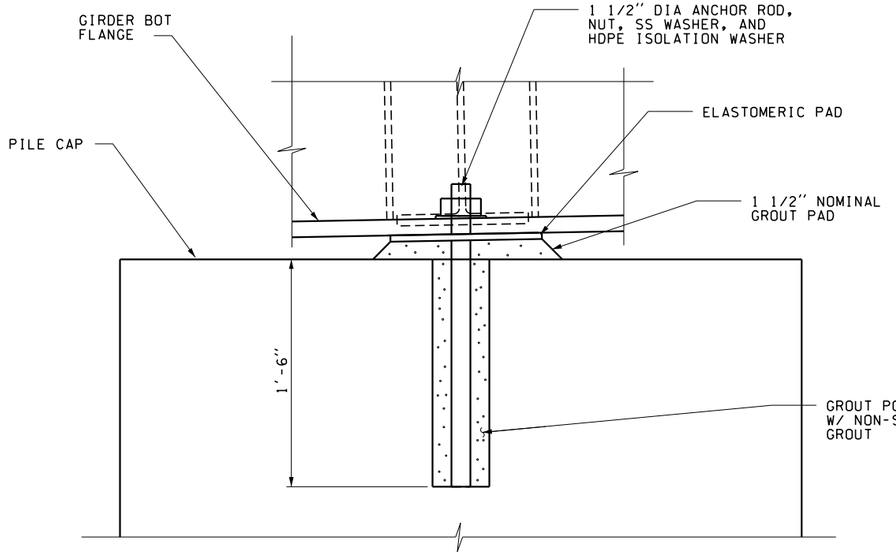
NOTES

1. ELASTOMERIC PADS SHALL MEET THE REQUIREMENTS OF AASHTO M251 WITH 60 DUROMETER HARDNESS, AND SHALL BE DESIGNED FOR THE FOLLOWING:

BEARING DESIGN TABLE	
SERVICE I LIMIT STATE	
DEAD LOAD REACTION	35 KIPS
LIVE LOAD REACTION (W/O IMPACT)	46 KIPS
UNLOADED HEIGHT	0.500
LOADED HEIGHT (DL)	0.498
SHEAR MODULUS (73 DEG F)	165 PSI

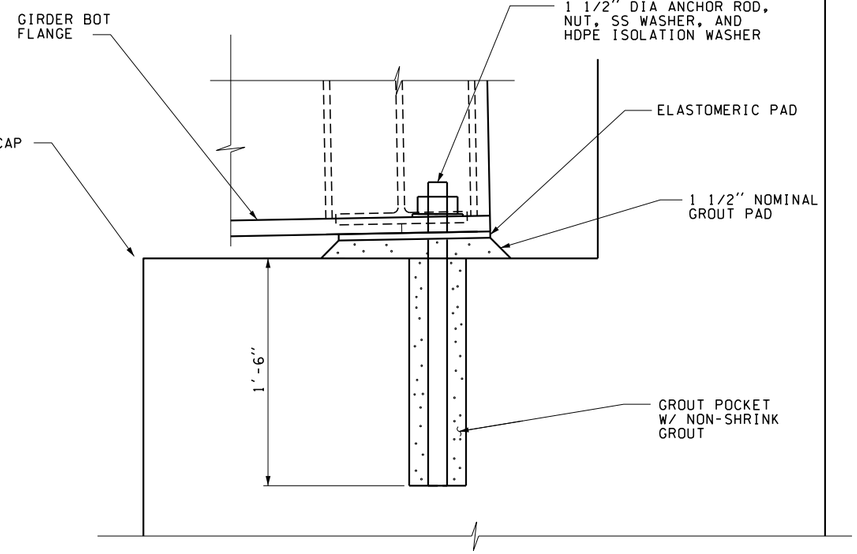
   BOND BEARING PADS TO GIRDER BOTTOM FLANGE.

2. ANCHOR RODS SHALL BE ASTM A193 TYPE 316 B8M CLASS 2.



A

ELEVATION



B

ELEVATION

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DESIGNED BY: J. KILBORN	1/18/2022					10 WASH
ENTERED BY: J. KILBORN	1/18/2022					JOB NUMBER
CHECKED BY: M. WRAY	1/18/2022					17W062
MAR PROJ ENGR: T. CASTOR	1/18/2022					CONTRACT NO.
DGN ENGR MNGR:						00****
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KILBORN — STATE OF WASHINGTON — 50260 — PROFESSIONAL ENGINEER

SEE CT01.00

Washington State Department of Transportation
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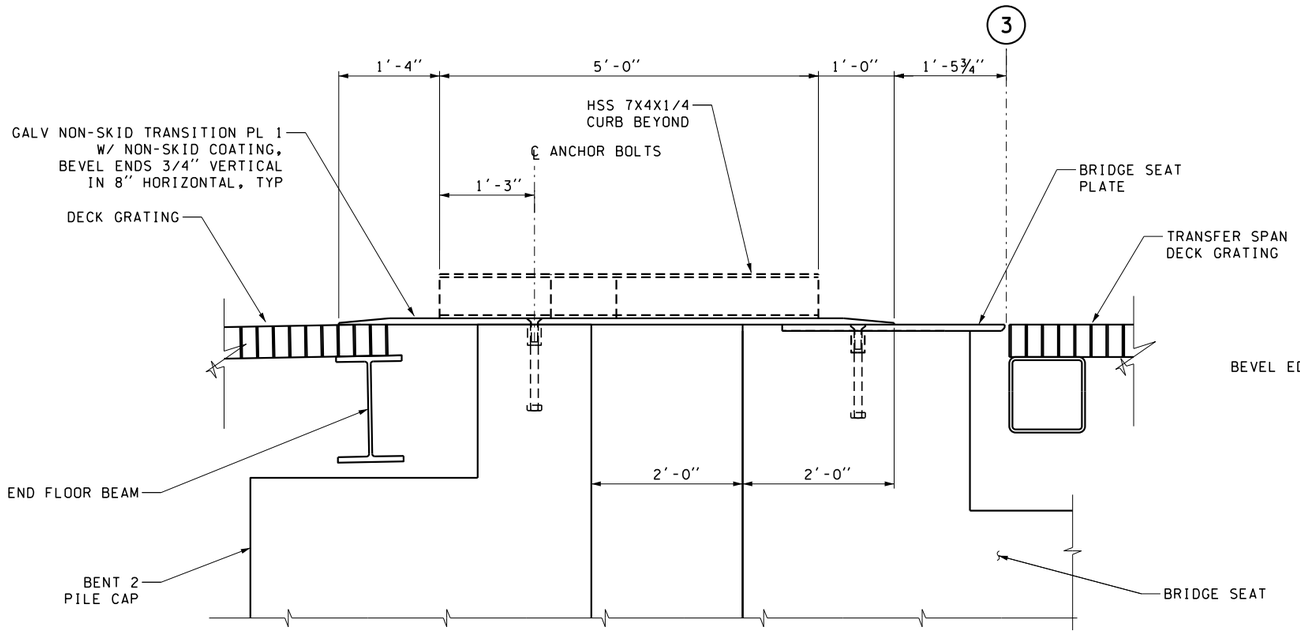
SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

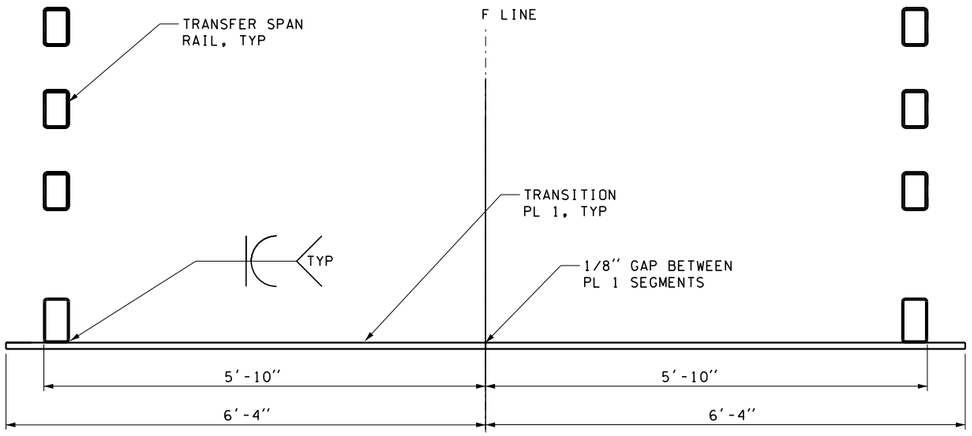
TRESTLE ANCHOR ROD DETAILS

S05.35

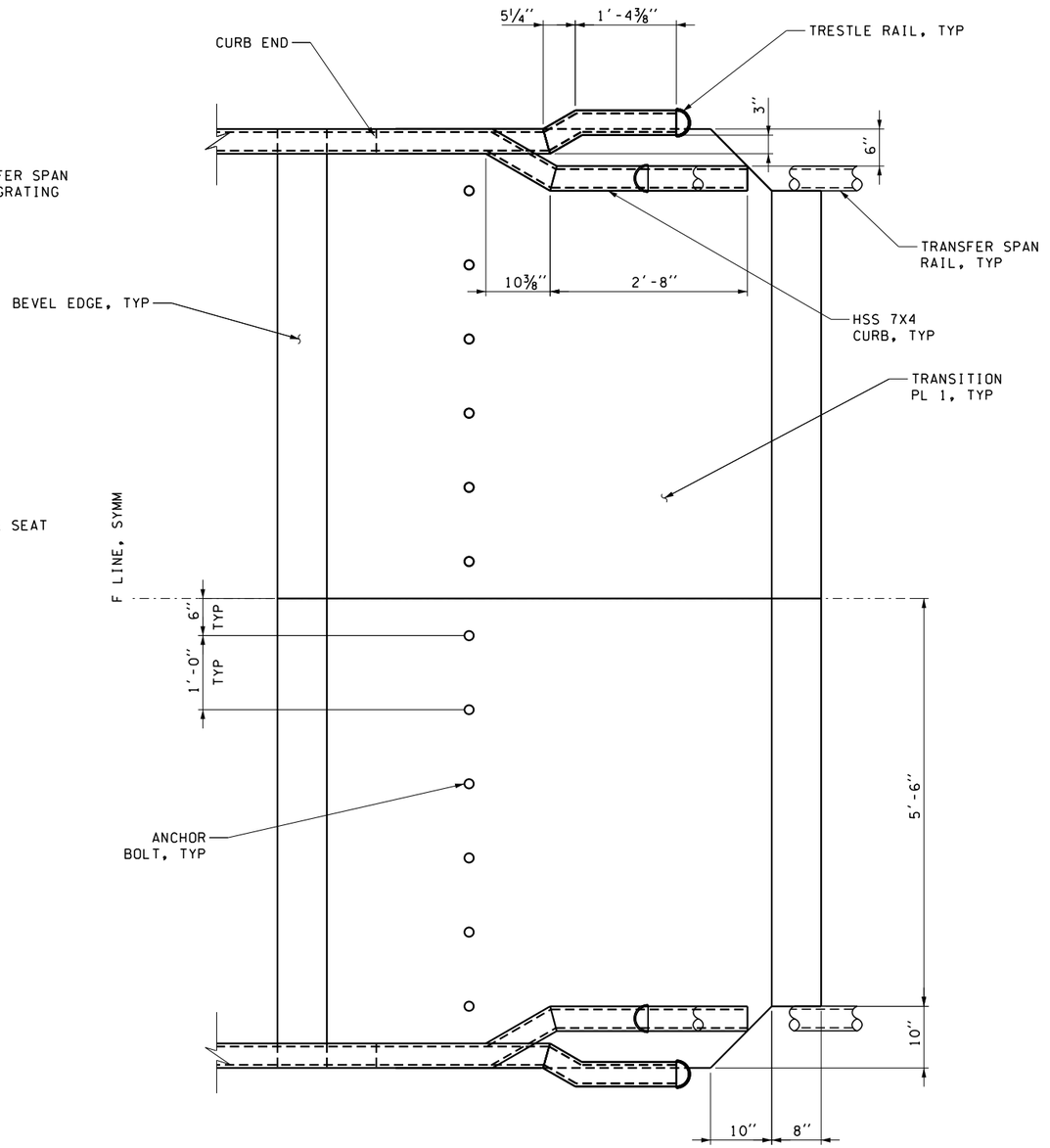
SHEET 34 OF 124 SHEETS



A S05.00 SECTION



B S05.00 SECTION



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ENTERED BY: M. MORIN	1/18/2022					REGION NO. STATE
CHECKED BY: M. WRAY	1/18/2022					10 WASH
MAR PROJ ENGR: T. CASTOR	1/18/2022					JOB NUMBER 17W062
DGN ENGR MNGR:						CONTRACT NO. 00****
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KLEBAN — STATE OF WASHINGTON — 30260 — PROFESSIONAL ENGINEER

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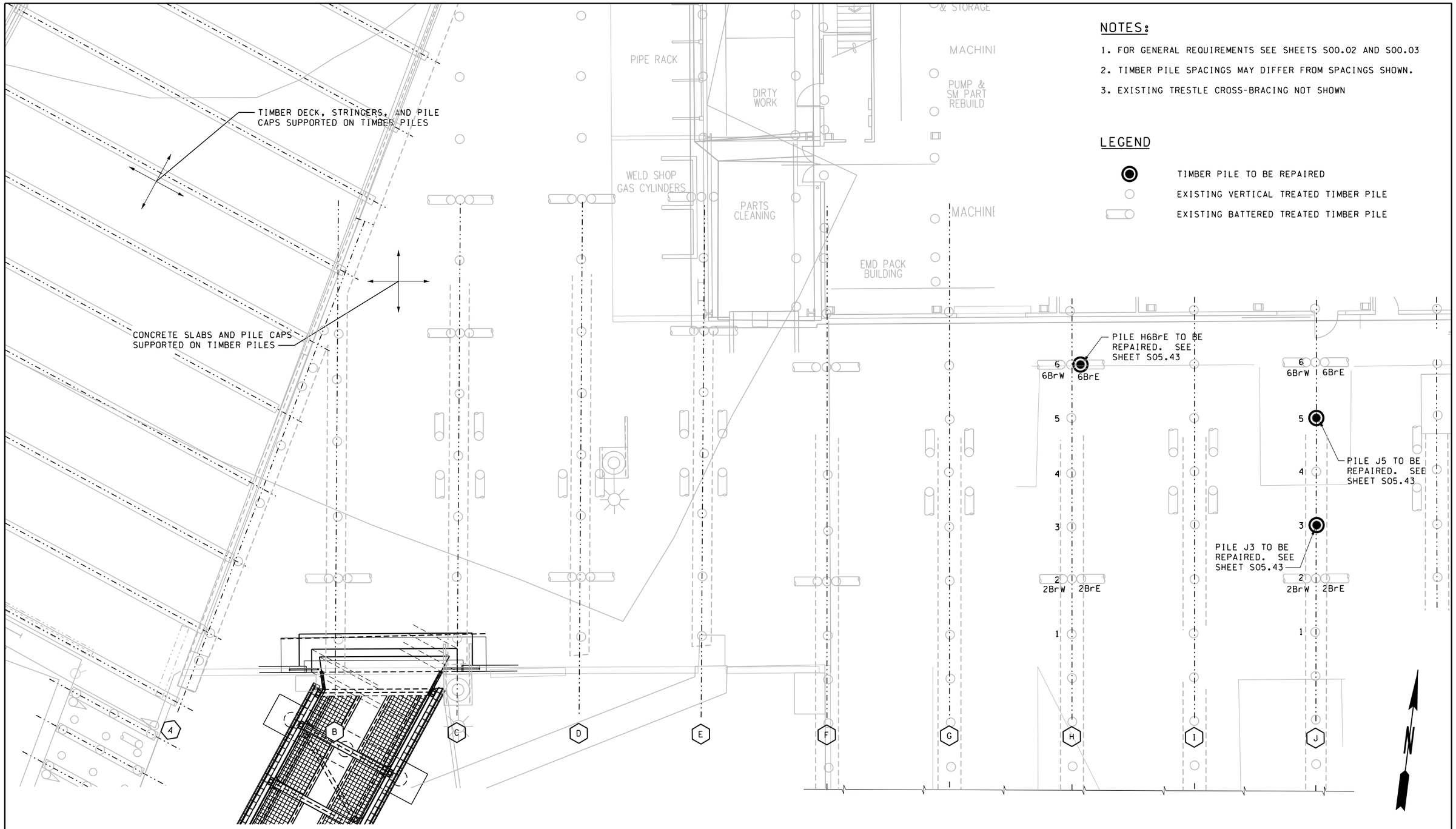
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

TRESTLE TO BRIDGE SEAT TRANSITION

S05.36

SHEET 35 OF 124 SHEETS



NOTES:

1. FOR GENERAL REQUIREMENTS SEE SHEETS S00.02 AND S00.03
2. TIMBER PILE SPACINGS MAY DIFFER FROM SPACINGS SHOWN.
3. EXISTING TRESTLE CROSS-BRACING NOT SHOWN

LEGEND

- TIMBER PILE TO BE REPAIRED
- EXISTING VERTICAL TREATED TIMBER PILE
- EXISTING BATTERED TREATED TIMBER PILE

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SUBMITTAL DATE: 1/11/22	morin					
DESIGNED BY: C. STEARNS	1/18/2022					*-WA-***
ENTERED BY: M. MORIN	1/18/2022					REGION NO. STATE
CHECKED BY: J. BERNSTEIN	1/18/2022					10 WASH
MAR PROJ ENGR: T. CASTOR	1/18/2022					JOB NUMBER 17W062
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CHRISTOPHER STEARNS — STATE OF WASHINGTON — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

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Washington State Department of Transportation
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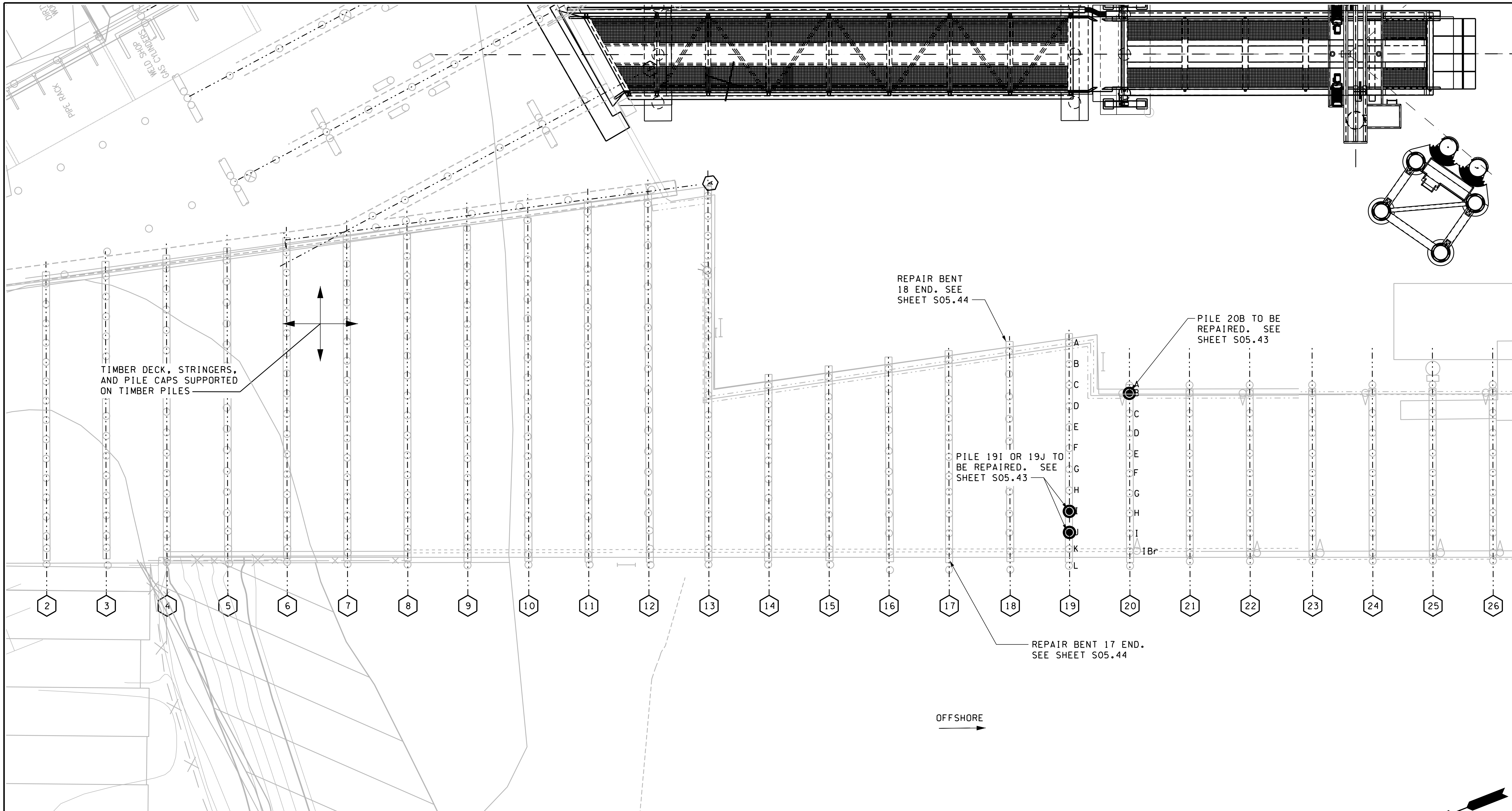
SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

BUILDING TRESTLE PILE LAYOUT

S05.40

SHEET 36 OF 124 SHEETS



NOTES:

1. SEE S05.40 FOR INFORMATION NOT SHOWN.

FILE NAME: PW: WSF/Eagle Harbor/17w062SlipFtoDriveOn/PE/PE_PD/CAD/_Contract_Plans/100%17w062s05_41.dlv

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MAR PROJ ENGR:	T. CASTOR	1/18/2022			
DGN ENGR MNGR:					
ASST SECRETARY:	P. RUBSTELLO		REVISION	DATE	BY

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REGION NO. 10 STATE WASH
JOB NUMBER 17W062
CONTRACT NO. 00****

CHRISTOPHER STEARNS — STATE OF WASHINGTON — 46202 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

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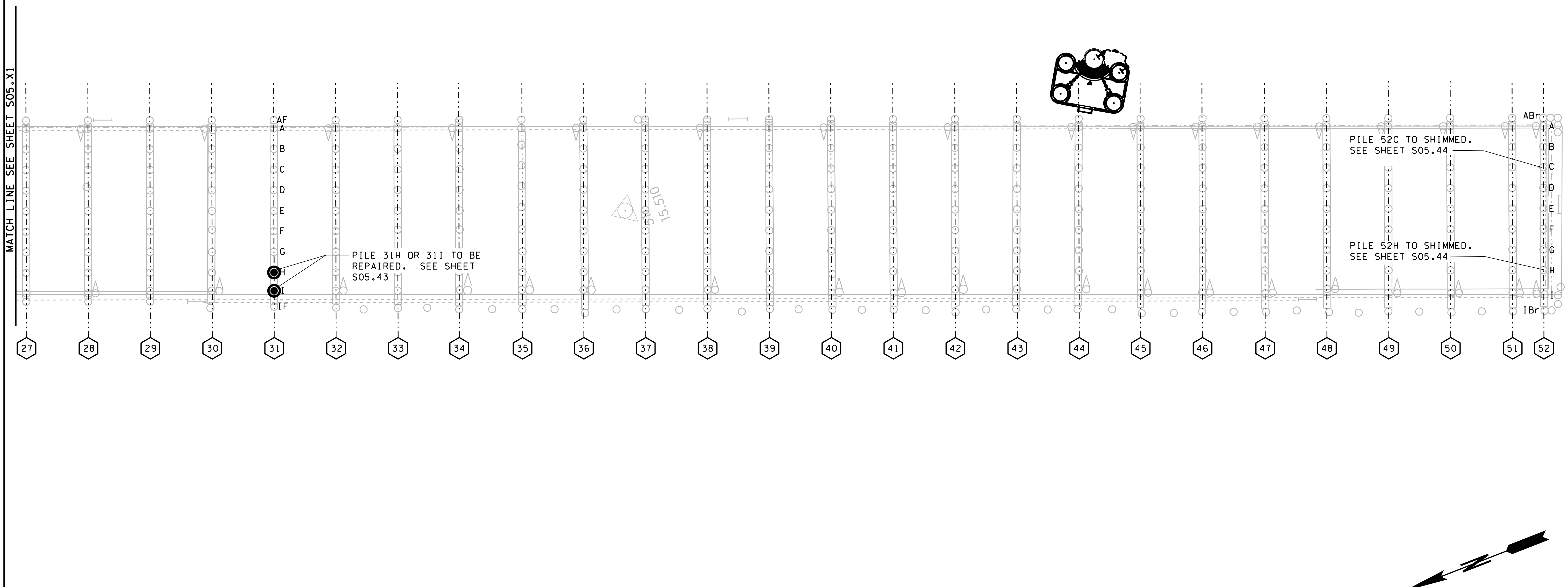
SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

TRASK PIER PILE LAYOUT 1

S05.41

SHEET 37 OF 124 SHEETS



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CHECKED BY:	J. BERNSTEIN	1/18/2022			
MAR PROJ ENGR:	T. CASTOR	1/18/2022			
DGN ENGR MNGR:					
ASST SECRETARY:	P. RUBSTELLO		REVISION	DATE	BY

FED.AID PROJ.NO. *-WA-***
REGION NO. 10 STATE WASH
JOB NUMBER 17W062
CONTRACT NO. 00****

CHRISTOPHER STEARNS, STATE OF WASHINGTON, STRUCTURAL ENGINEER, PROFESSIONAL ENGINEER, 46202

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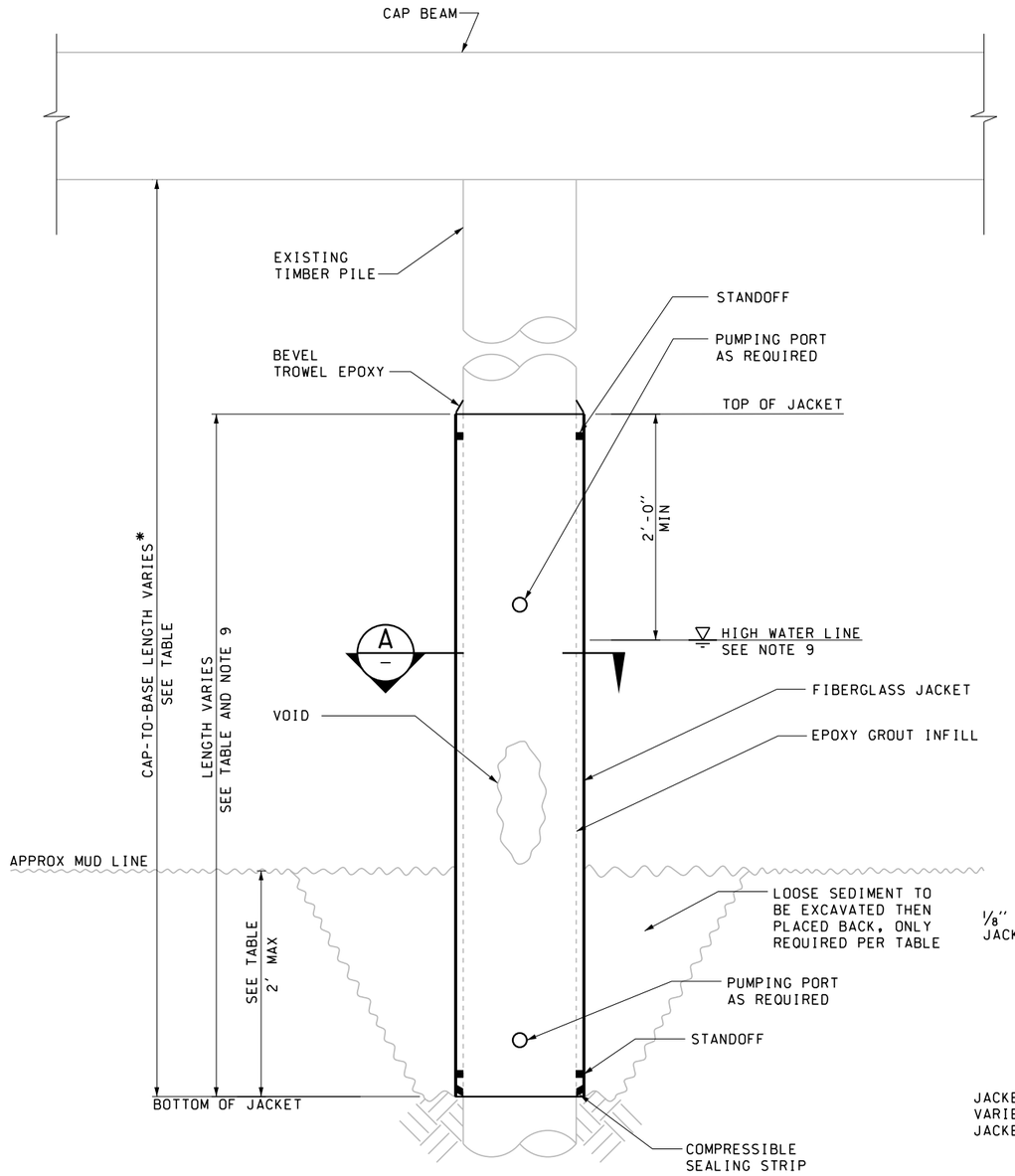
SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

TRASK PIER PILE LAYOUT 2

S05.42

SHEET 38 OF 124 SHEETS



TIMBER PILE REPAIR DETAIL

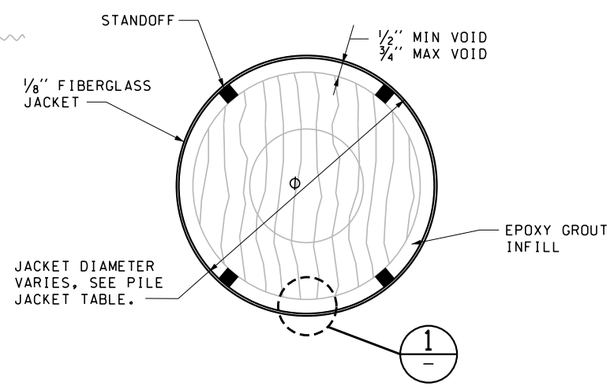
* LENGTH REFERS TO VERTICAL DIMENSIONS ON ALL BATTERED PILES.

PILE JACKET TABLE						
TRESTLE	PILE DESIGNATION	MUDLINE DIAMETER (IN)	CAP-TO-MDL LENGTH (FT)	BOTTOM OF JACKET	TOP OF JACKET	JACKET LENGTH (FT)
BUILDING	6HbrE	11.0	13.5	MDL	MDL+6'	6
BUILDING	J3	11.8	16.5	MDL+2'	CAP	14.5
BUILDING	J5	10.8	14.5	MDL+1'	MDL+7'	6
TRASK	19I	14.3	18.2	MDL-2'	MDL+14'	16
TRASK	19J	11.5	18.5	MDL+10'	CAP	8.5
TRASK	20B	11.1	20.0	MDL-1'	MDL+12'	13
TRASK	31H	11.5	25.0	MDL-1'	MDL+5'	6
TRASK	31I	10.5	25.0	MDL+8'	MDL+17'	9

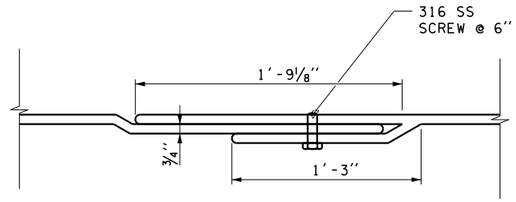
*PILE DIAMETER IS APPROXIMATE AND SHALL BE FIELD VERIFIED BY CONTRACTOR

NOTES:

1. FOR GENERAL REQUIREMENTS AND FIELD TREATMENT OF CUT SURFACES, SPIKE AND BOLT HOLES, AND CONTACT SURFACES, SEE S00.01 AND S00.02
2. FOR ADDITIONAL REQUIREMENTS, SEE SPECIAL PROVISION "TIMBER PILE REPAIR".
3. FOR LOCATIONS OF TIMBER PILES TO BE REPAIRED, SEE TRESTLE PILE LAYOUT SHEETS.
4. WHERE GROUND LINE SLOPES, EXCAVATION SHALL BE MEASURED FROM THE LOWEST ADJACENT GROUND LINE.
5. THE CONTRACTOR SHALL CLEAN AND TREAT THE SURFACE OF THE EXISTING TIMBER PILE PRIOR TO THE INSTALLATION OF THE FIBERGLASS JACKET AND EPOXY GROUT PER SPECIAL PROVISIONS.
6. THE CONTRACTOR SHALL TAKE STEPS NECESSARY TO PREVENT DEBRIS AND MATERIAL FROM ENTERING THE WATER WHILE CLEANING AND REPAIR PLACEMENT.
7. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL THE PROPOSED PILE JACKET SYSTEM. STANDOFF SPACERS SHALL BE PROVIDED TO ENSURE THE JACKET FORM IS CENTERED ON THE EXISTING PILES.
8. ALL STEEL THREADED RODS, FASTENERS AND CONNECTIONS SHALL BE HOT-DIPPED GALVANIZED PER AASHTO M232.
9. SPECIFIED PILE JACKET DETAILS BASED ON ROT LOCATIONS. GREATER HEIGHTS MAY BE ALLOWED BASED ON HIGH WATER LEVEL.
10. TRANSVERSE CROSS-BRACING NEED NOT BE REINSTALLED AFTER JACKET INSTALLATION.
11. ADDITIONAL EXCAVATION MAY BE REQUIRED TO ACCOUNT FOR SEALING STRIP INSTALLATION.
12. SEE S05.45 FOR PILE INSPECTION DATA SHEETS.



A — SECTION



1 — DETAIL

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DESIGNED BY: C. STEARNS	1/18/2022					REGION NO. 10 / STATE WASH
ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062
CHECKED BY: J. BERNSTEIN	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
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CHRISTOPHER STEARNS — STATE OF WASHINGTON — 46202 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

SEE CT01.00

Washington State Department of Transportation
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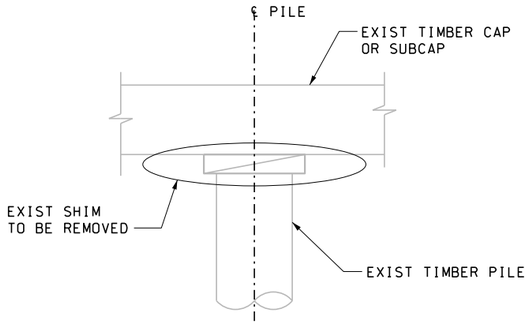
SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

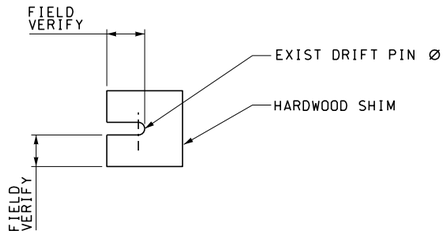
TIMBER PILE REPAIR DETAILS

S05.43

SHEET 39 OF 124 SHEETS

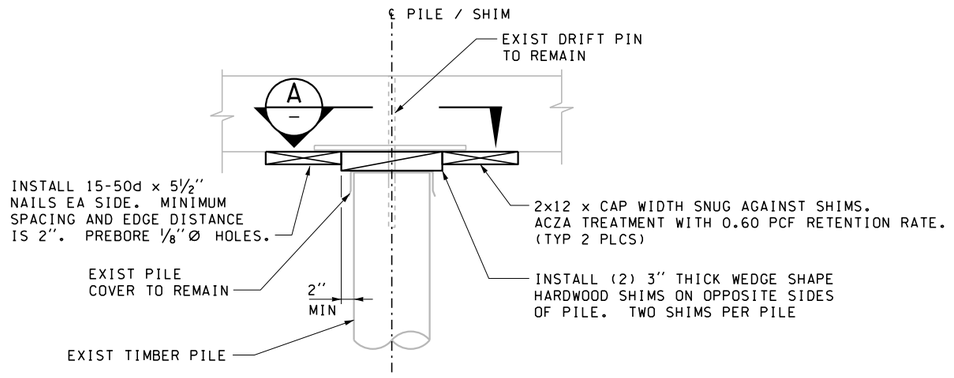


EXIST CONDITION
EXIST TIMBER PILE SHIM



NOTE: SLOT SHIM AT EXIST
DRIFT PIN LOCATIONS.

A – SECTION



NOTE: FIELD CUT REPLACEMENT TIMBER PILES FOR TIGHT FIT.
CHANNEL STRAPS AND ASSOCIATED FASTENERS
NOT SHOWN FOR CLARITY. EXIST PILE COVER AND
DRIFT PIN NOT SHOWN FOR CLARITY.

TRASK PIER PILE 52C AND 52H
TIMBER PILE SHIM

NOTES:

1. FOR GENERAL REQUIREMENTS, SEE SOO DRAWING SERIES.
2. HARDWOOD SHALL HAVE A JANKA HARDNESS RATING GREATER THAN 1320.
3. FOR FURTHER PILE SHIMMING AND CAP REPAIR REQUIREMENTS, SEE SPECIAL PROVISIONS.

BENT 17 PILE CAP END REPAIR
LOOKING OFFSHORE

BENT 18 PILE CAP END REPAIR
LOOKING ONSHORE

FILE NAME: PW: WSF/Eagle Harbor/17w062SlipFtoDriveOn/PE/PE_PD/CAD/_Contract_Plans/100%17w062s05_44.dlv						
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ENTERED BY: M. MORIN	1/18/2022					REGION NO. 10 / STATE WASH
CHECKED BY: J. BERNSTEIN	1/18/2022					
MAR PROJ ENGR: T. CASTOR	1/18/2022					JOB NUMBER 17W062
DGN ENGR MNGR:						CONTRACT NO. 00****
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EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

TIMBER REPAIR DETAILS

S05.44

SHEET 40 OF 124 SHEETS

BUILDING TRESTLE

INFORMATIONAL ONLY

	Underwater	**11/5/2019**	**Lead:**	**RMP/MBS**	**Co:**		**DON/JRWH/MBS/LAW**	
	Routine	**5/12/2020**	**Lead:**	**RMP**	**Co:**		**DON**	
							Emphasis on Timber Caps during 2020 inspection	
Pile Location		Condition/Damage						Inspection Type
Bent	Pile	% Area Remaining	RT or YT	YT/RT Pile Circumference (in)	Defect Location	Pile Length (Cap to MDL)	Details/Remarks	Routine/UW
Pile Defects are located vertically from either the cap down or the mudline up and by the clock position around the pile with 12:00 being offshore.								
H	6BrE	75	YT		MDL+3 @ 5:00		MBC; 6"(D) x 6"(W) x 12"(H) cavity. (Photo UW-5, CS3)	UW
J	3	50	YT		MDL to +5 @ 12:00 Cap -2		Check in pile full height with 4" penetration Marine Borer activity in check with loss of section. Drilled in 2019 2" shell @ 6:00	UW
J	5	50	YT		MDL + 4 @ 8:00		Two 1-1/2" old bolt holes. MBE. 8"deep x 9" tall diameter rot pocket. (Photo UW-4, CS3)	UW

TRASK PIER

INFORMATIONAL ONLY

Routine:	5/12/2020	Lead:	DON	Co:	RMP
Underwater:	11/4/2019	Lead:	DON	Co:	JRWH

Bent Row	Pile	% Area Remaining	Pile Type	YT/RT	YT/RT Pile Circum. (in)	Defect Location	Pile Length	Details/Remarks	Routine or Underwater
19	I	50	Timber	YT	45" at MDL 49" at MDL+11	MDL to MDL+6 @ 4:00 MDL to MDL+2 MDL+12 @ 4:00	18.2	4" wide x 2" deep ring splits and missing layers. (Photo #204) 8" wide x 2" deep ring splits (3:00 - 5:00 @ MDL) 1-1/2" dia. hole with MBC 8" deep (7" pen @ 45d L/R) See photo UW-46.	UW Routine
19	J	50	Timber	YT	36" at MDL	Cap to MDL+12 MDL+14 Cap to Cap-4	18.5	Shake/ring split 2:00 - 4:00 up to 1-1/2" deep MBC 5"w x 2"deep @ 3:00 Multiple checks at top. Rot with 2" Shell to 4" cavity determined by drilling at 8:00. (Photo #212)	UW Routine
20	B	50	Timber	YT	35 @ MDL 37 @ MDL+8	MDL + 1 to MDL+3 MDL +8 @ 12:00 MDL+9 @ 12:00	20	1-1/2" deep striations @ 12:00 3" diameter hole with a 12" tall by 10" wide by 7" deep MBC behind it. See photos UW-47 and #190 of the top connection. MBC 2"w x 3"v opening w/ 9" pen (7" pen 45d L/R)	UW
31	H	50	Timber	YT	36"	FH FH @ 10:00 - 1:00 MDL+1 @ 9:00 MDL +2 @ 9:00	25.0	Limnoria striations Ring split 1" shake missing MBC 2"w x 3"v opening w/ 2-1/2" pen. Incl. 4" up into cavity MBC 1"w x 2"v w/ 7-1/2" pen. (3-1/2" pen 45d L / 4" 45d R) Photo UW-62, and #188 of the top connection	UW
31	I	50	Timber	YT	33" @ MDL 36" @ MDL+11	FH MDL+11 @ 10:00 MDL +13 @ 10:00 MDL+14 @ 6:00	25.0	Limnoria striations. MBC 1"w x 2-1/2"v opening w/ 8" pen. See photo UW-51 MBC 1-1/3"w x 3"v opening w/ 7" pen. See photo UW-52 MBC 1"w x 2"v w/ 7-1/2" pen. (3-1/2" pen 45d L / 6" 45d R) See photo #188 of the top connection	UW
52	C	75	Timber			MDL to MDL+7 Top		Limnoria striations up to 3" deep. Non-bearing. (Shown as 0% layout) Actual 75% remaining. REPAIR #10055	UW ROUTINE
52	H	75	Timber		41	MDL to ITZ Top		Limnoria striations. Non-bearing. (Shown as 0% layout) Actual 75% remaining. See photo #169. REPAIR #10055	UW

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ENTERED BY:	M. MORIN	1/18/2022				JOB NUMBER 17W062
CHECKED BY:	J. BERNSTEIN	1/18/2022				CONTRACT NO. 00****
MAR PROJ ENGR:	T. CASTOR	1/18/2022				
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CHRISTOPHER STEARNS STATE OF WASHINGTON 46202 STRUCTURAL ENGINEER PROFESSIONAL ENGINEER

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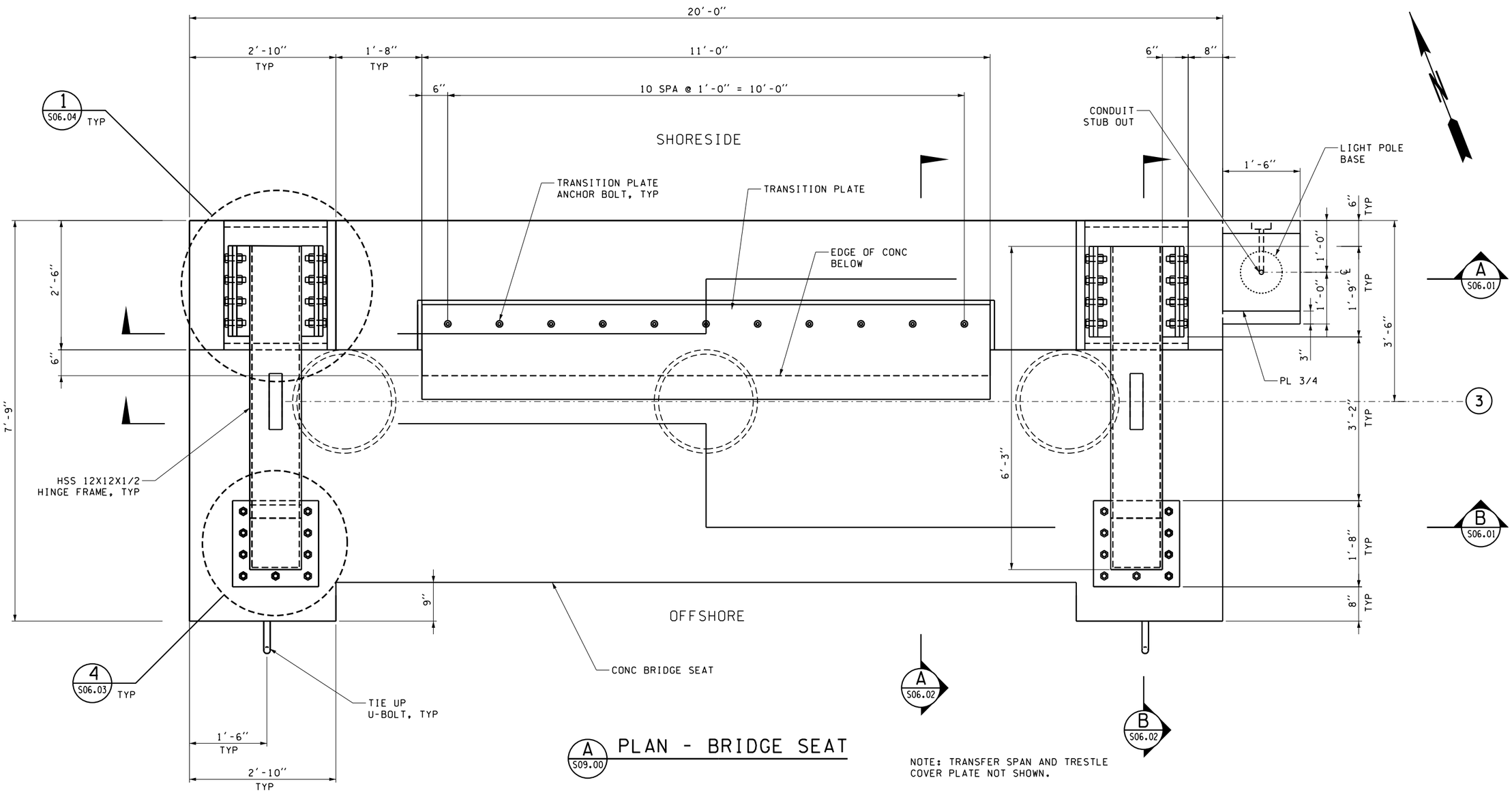
SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

TRESTLE PILE INSPECTION DATA

S05.45



A S09.00 PLAN - BRIDGE SEAT

NOTE: TRANSFER SPAN AND TRESTLE COVER PLATE NOT SHOWN.

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JEFFREY PAUL KILBORN — STATE OF WASHINGTON — 52260 — REGISTERED PROFESSIONAL ENGINEER

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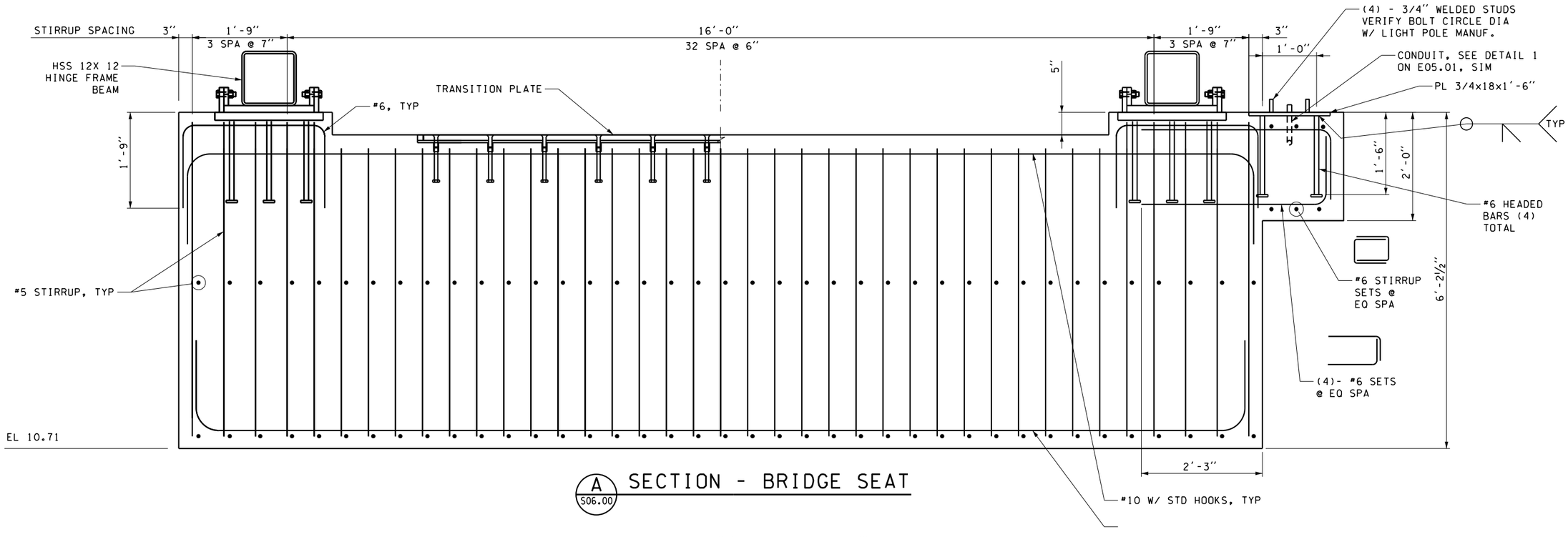
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

PRECAST BRIDGE SEAT PLAN

S06.00

SHEET 42 OF 124 SHEETS



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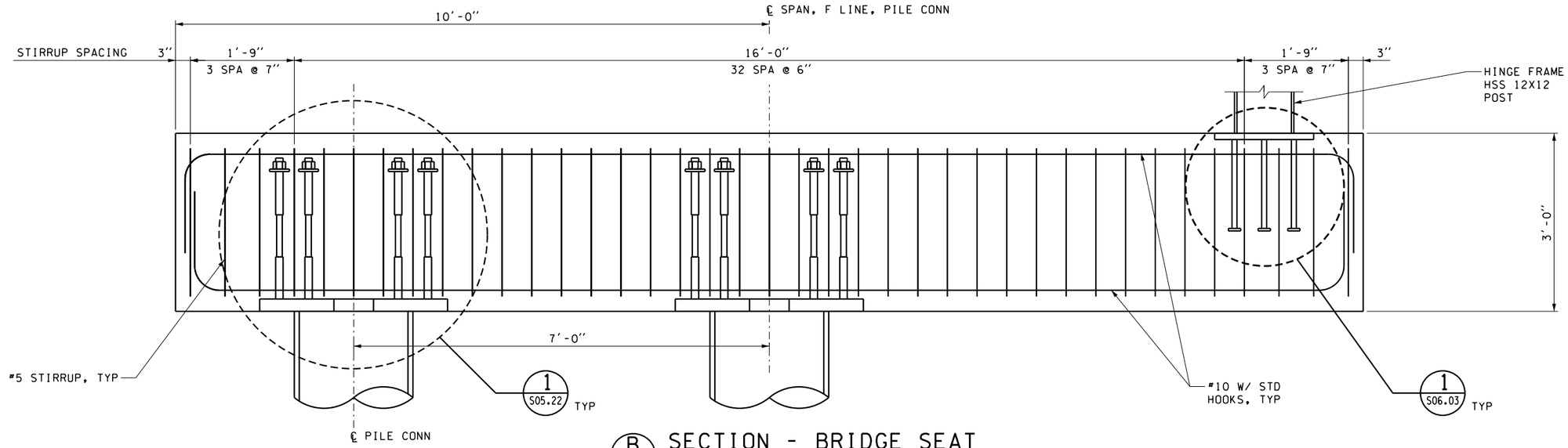

B S06.00 SECTION - BRIDGE SEAT

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JEFFREY PAUL KILBORN — STATE OF WASHINGTON — 36260 — PROFESSIONAL ENGINEER

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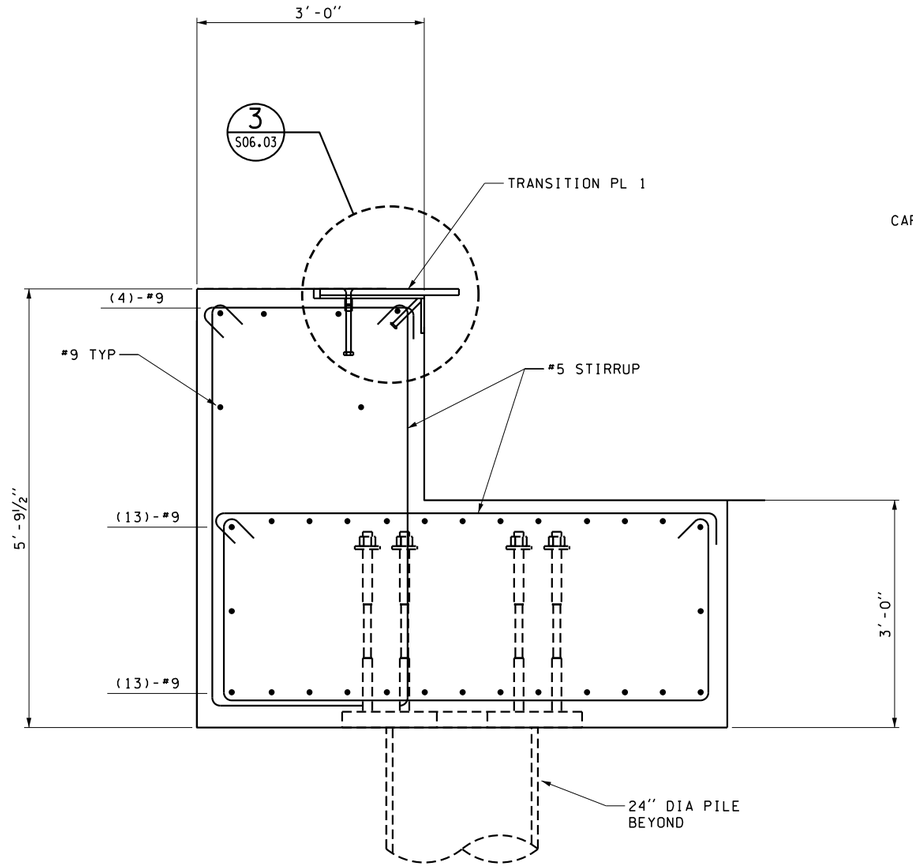
SLIP F DRIVE ON TIE-UP SLIP

PRECAST BRIDGE SEAT SECTIONS I

S06.01

SHEET 43 OF 124 SHEETS



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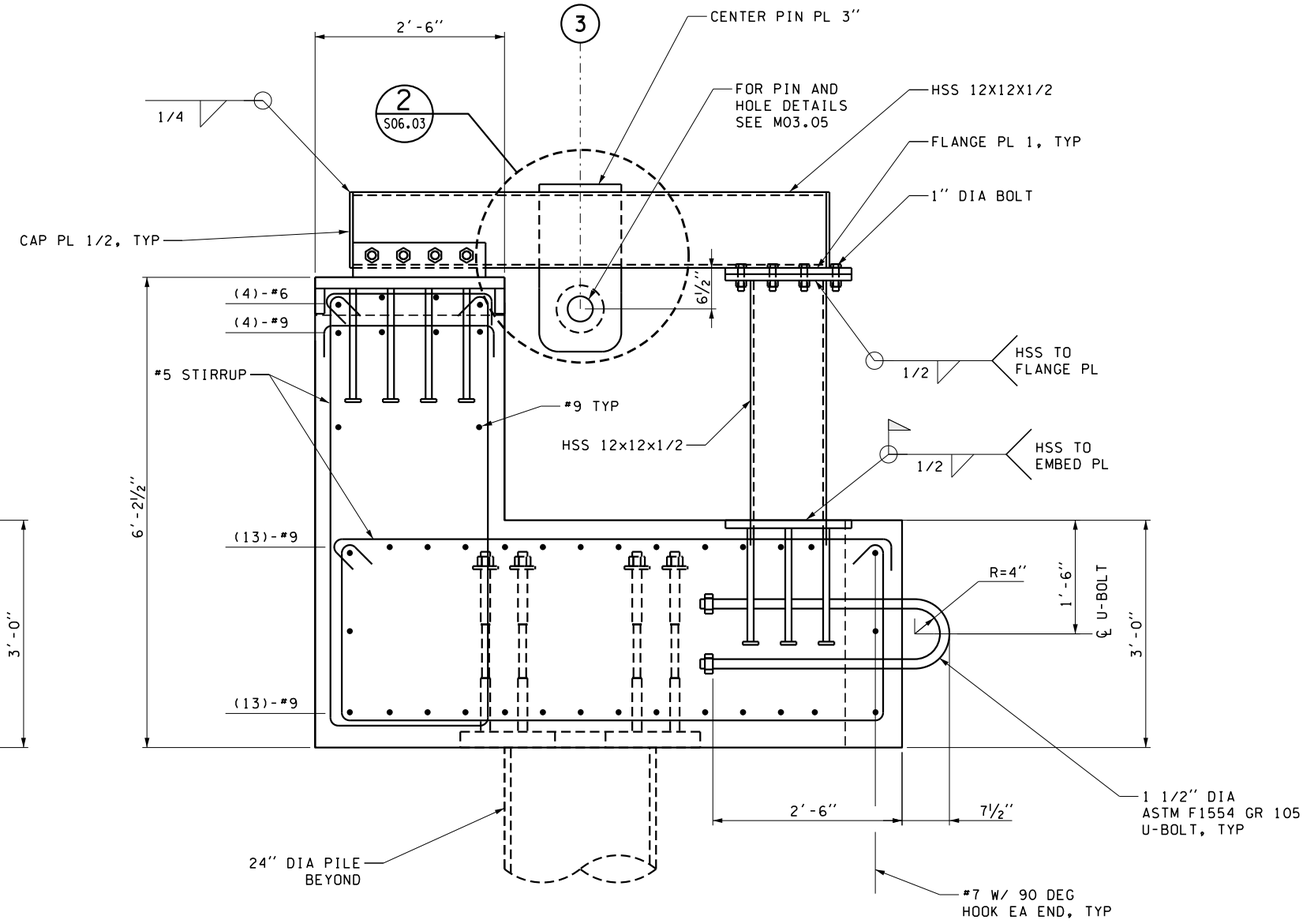

B S06.00 SECTION - BRIDGE SEAT

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ENTERED BY: M. MORIN	1/18/2022					REGION NO. STATE
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JEFFREY PAUL KILDOW — STATE OF WASHINGTON — 30260 — PROFESSIONAL ENGINEER — STRUCTURAL ENGINEER

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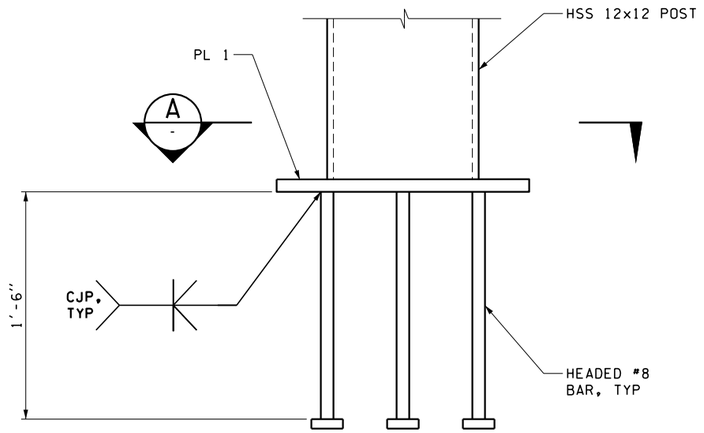
SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

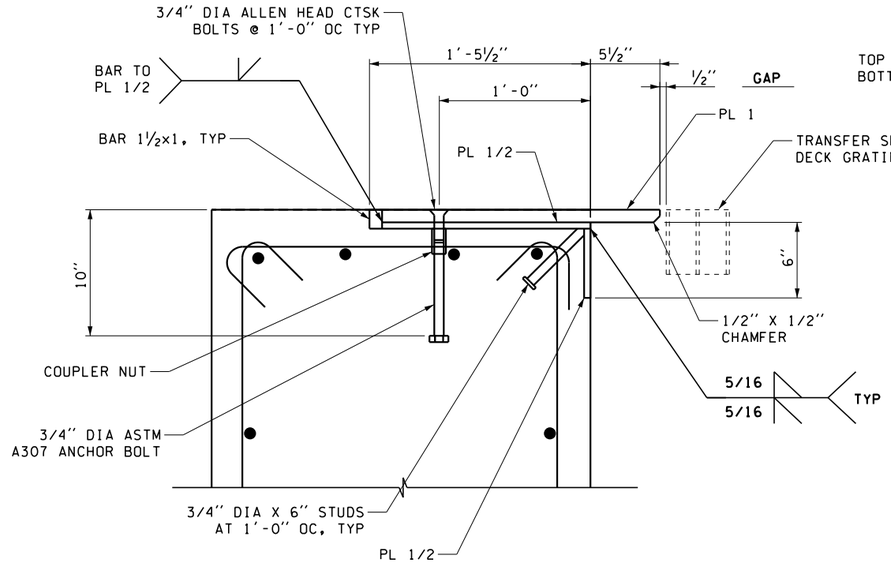
PRECAST BRIDGE SEAT SECTIONS II

S06.02

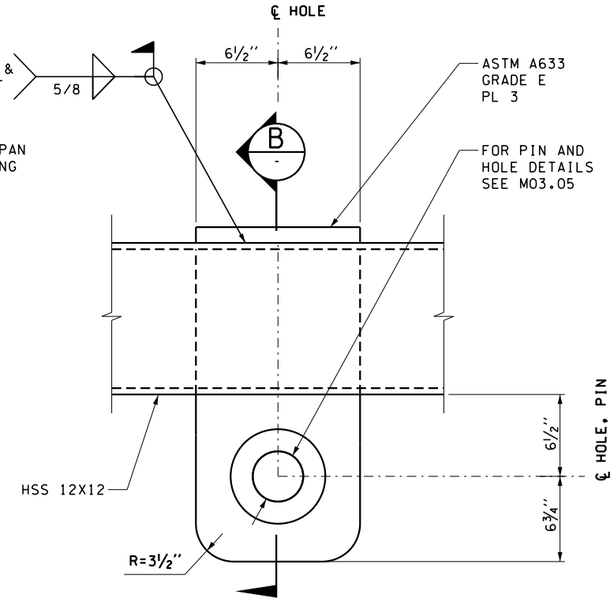
SHEET 44 OF 124 SHEETS



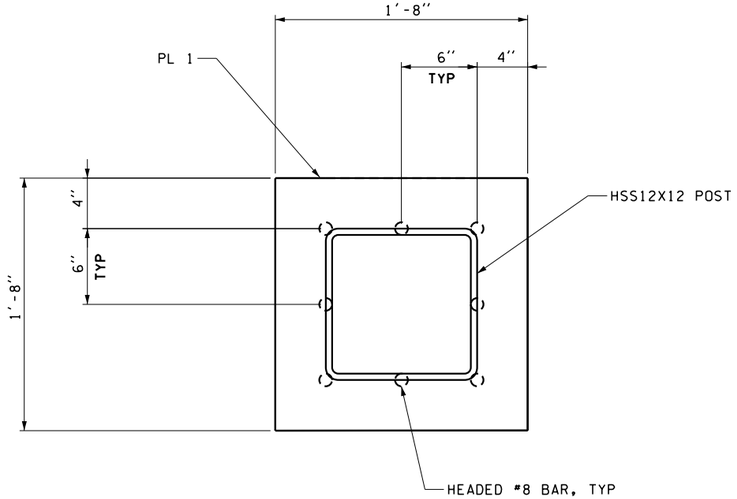
1 S06.01 DETAIL - POST BASE



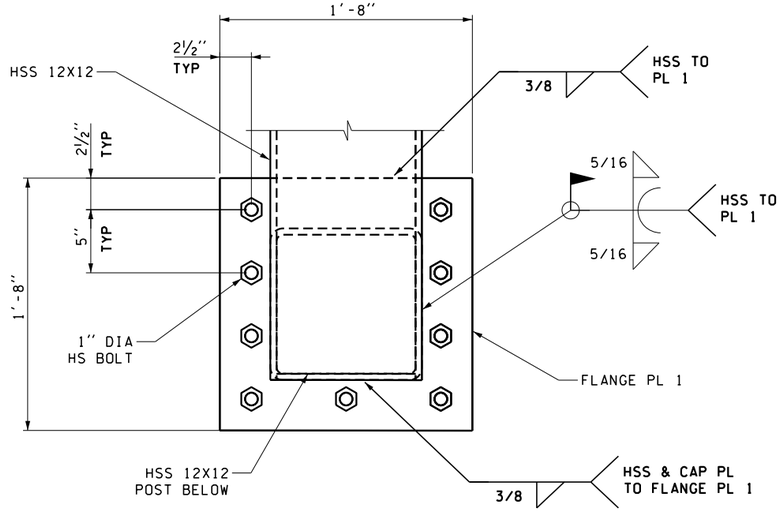
3 S06.02 DETAIL - TRANSITION PLATE



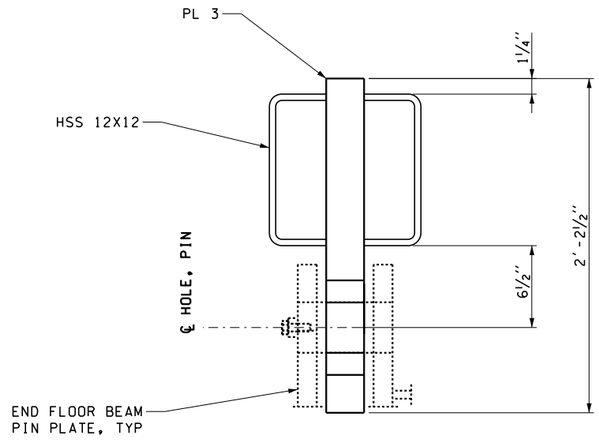
2 S06.02 DETAIL - CENTER PIN PLATE



A - SECTION



4 S06.00 DETAIL - POST TOP



B - SECTION

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SUBMITTAL DATE: 1/11/22	morin					*-WA-***
DESIGNED BY: R. JENS	1/18/2022					REGION NO. 10 STATE WASH
ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062
CHECKED BY: M. WRAY	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KILBORN — STATE OF WASHINGTON — 20860 — PROFESSIONAL ENGINEER

SEE CT01.00

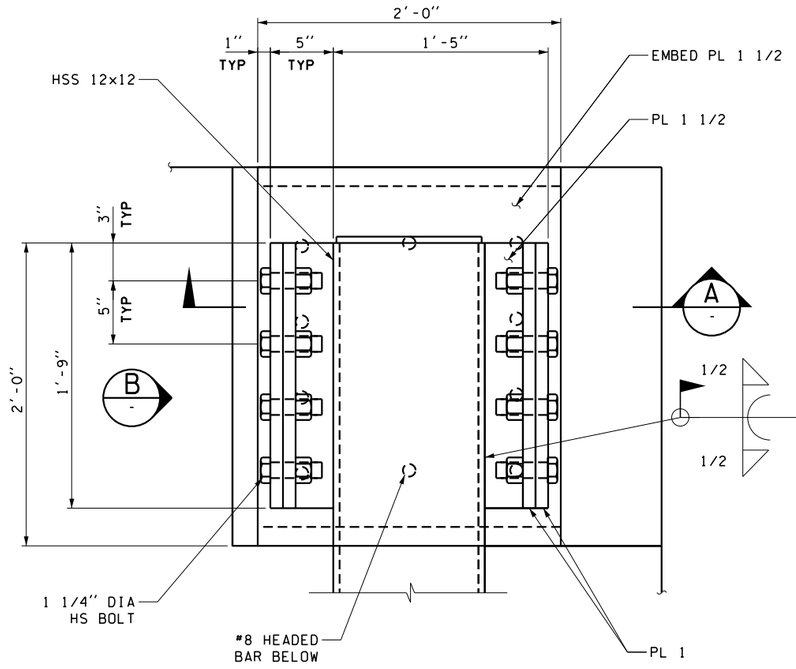
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

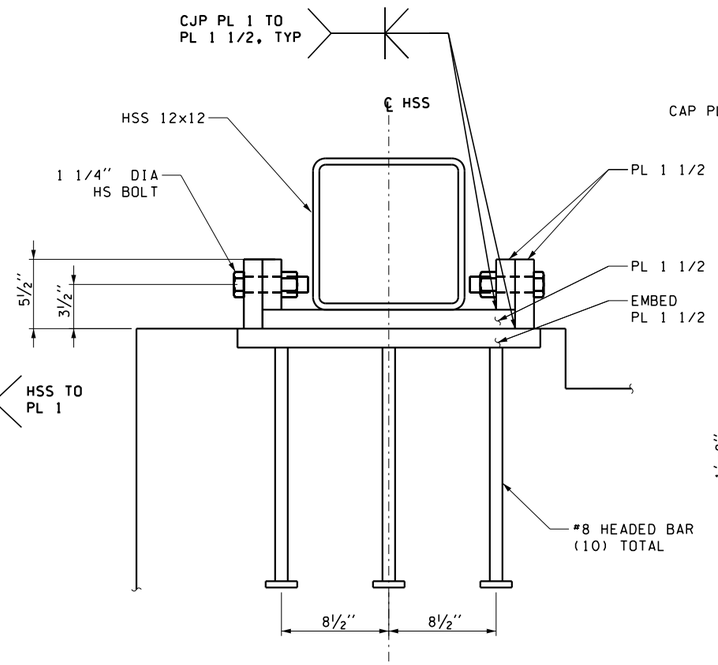
PRECAST BRIDGE SEAT DETAILS I

S06.03

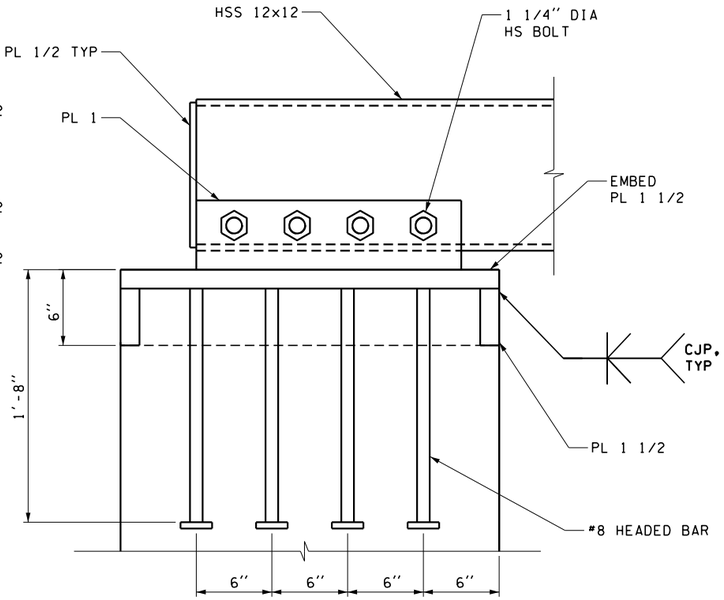
SHEET 45 OF 124 SHEETS



1 S06.00 DETAIL - HINGE BEAM



A - SECTION



B - VIEW

FILE NAME: PW: WSF/Eagle Harbor/17w062SlipFtoDriveOn/PE/PE_PD/CAD/_Contract_Plans/100%/17w062s06_04.dlv						
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SUBMITTAL DATE: 1/11/22	morin					
DESIGNED BY: R. BADER	1/18/2022					*-WA-***
ENTERED BY: M. MORIN	1/18/2022					REGION NO. STATE
CHECKED BY: M. WRAY	1/18/2022					10 WASH
MAR PROJ ENGR: T. CASTOR	1/18/2022					JOB NUMBER 17W062
DGN ENGR MNGR:						CONTRACT NO. 00****
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL RYBORN — STATE OF WASHINGTON — 30260 — PROFESSIONAL ENGINEER

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Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

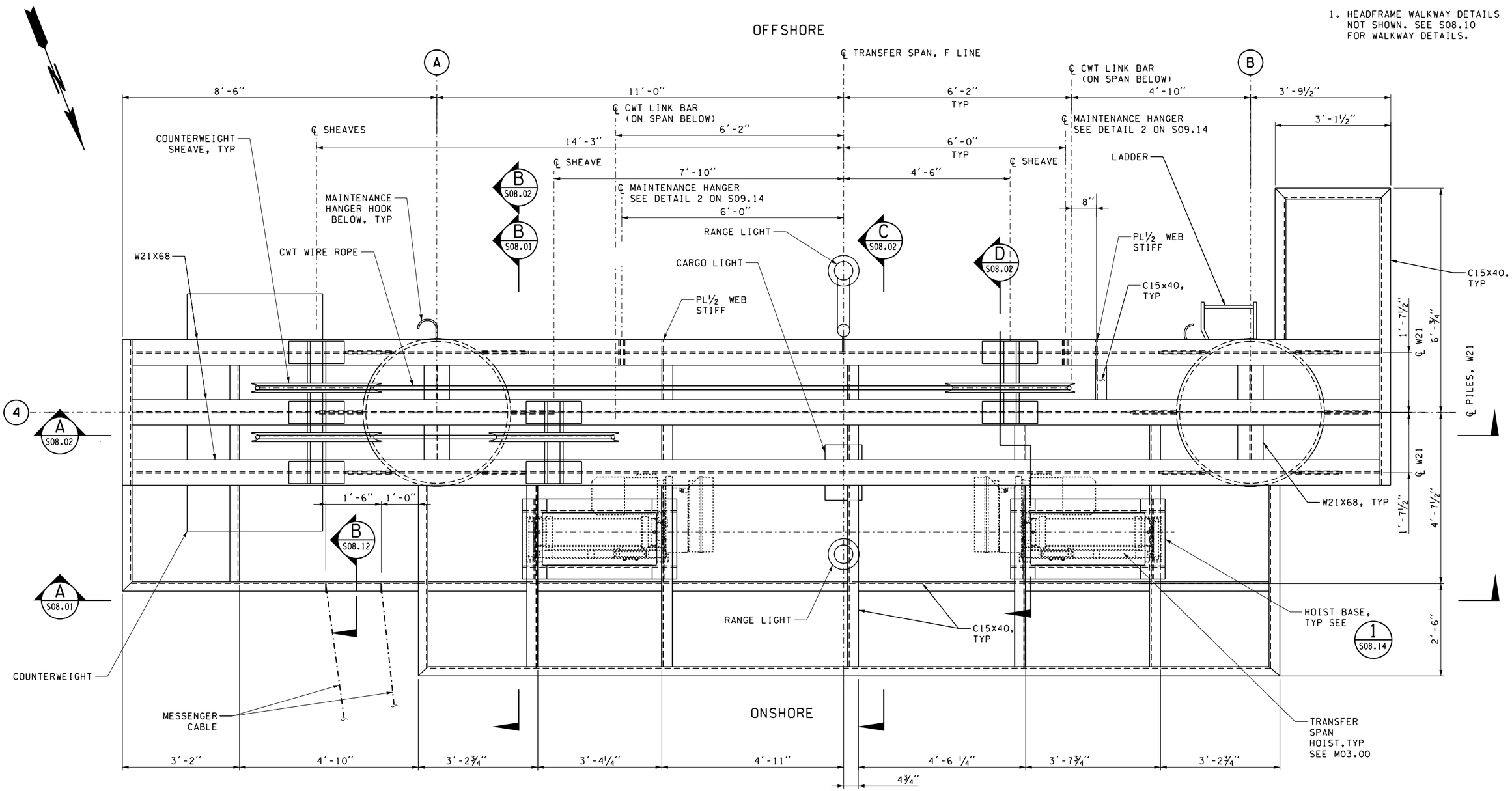
PRECAST BRIDGE SEAT DETAILS II

S06.04

SHEET 46 OF 124 SHEETS

NOTES

1. HEADFRAME WALKWAY DETAILS NOT SHOWN. SEE S08.10 FOR WALKWAY DETAILS.



PLAN - HEADFRAME

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SUBMITTAL DATE: 1/11/22						*-WA-***
DESIGNED BY: J. KILBORN	1/18/2022					REGION NO. 10 / STATE WASH
ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062
CHECKED BY: M. WRAY	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KILBORN — STATE OF WASHINGTON — 30260 — REGISTERED PROFESSIONAL ENGINEER

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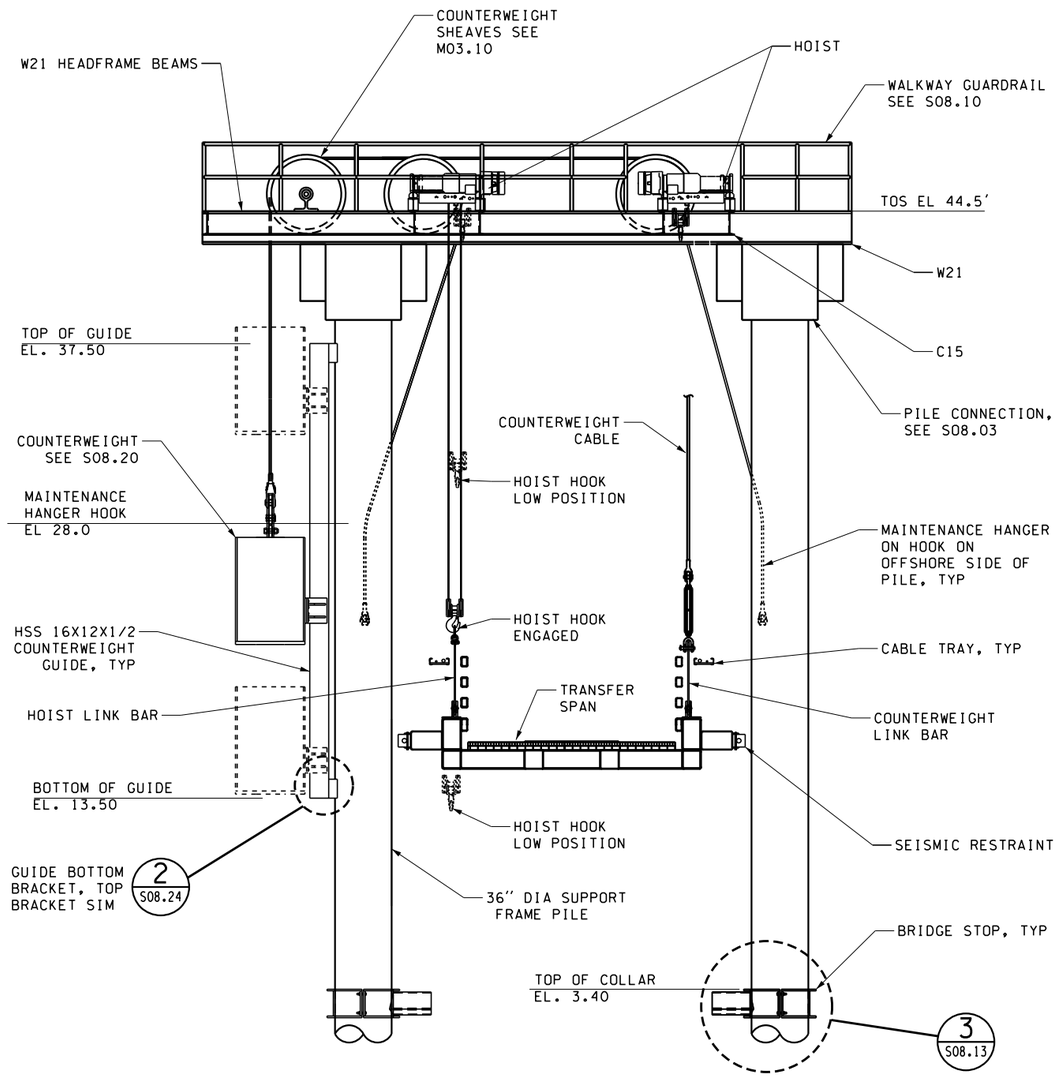
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

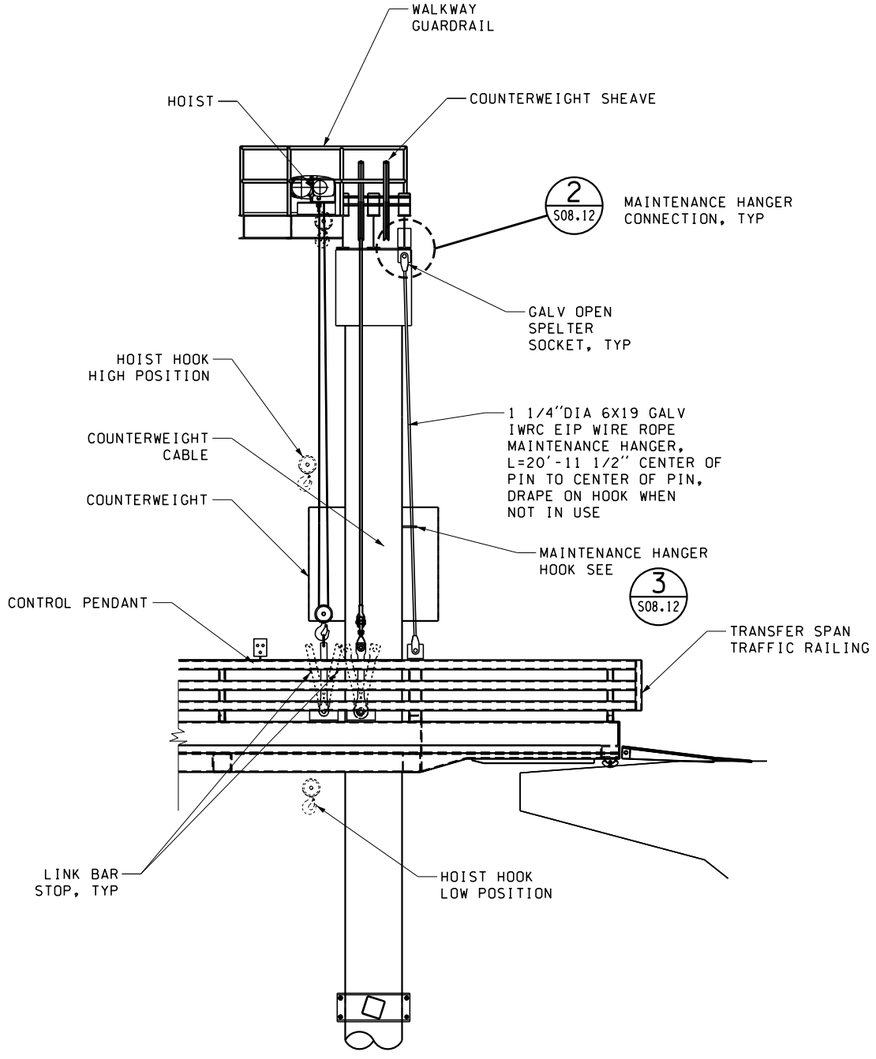
HEADFRAME PLAN

S08.00

SHEET 47 OF 124 SHEETS



A S08.00 ELEVATION - LOOKING OFFSHORE



B S08.00 SECTION - LOOKING EAST

DATUM
MLLW ('83-'01)

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SUBMITTAL DATE: 1/11/22						*-WA-***
DESIGNED BY: J. KILBORN	1/18/2022					REGION NO. 10 STATE WASH
ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062
CHECKED BY: M. WRAY	1/18/2022					
MAR PROJ ENGR: T. CASTOR	1/18/2022					CONTRACT NO. 00****
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KILBORN, STATE OF WASHINGTON, 30260, PROFESSIONAL ENGINEER, STRUCTURAL ENGINEER

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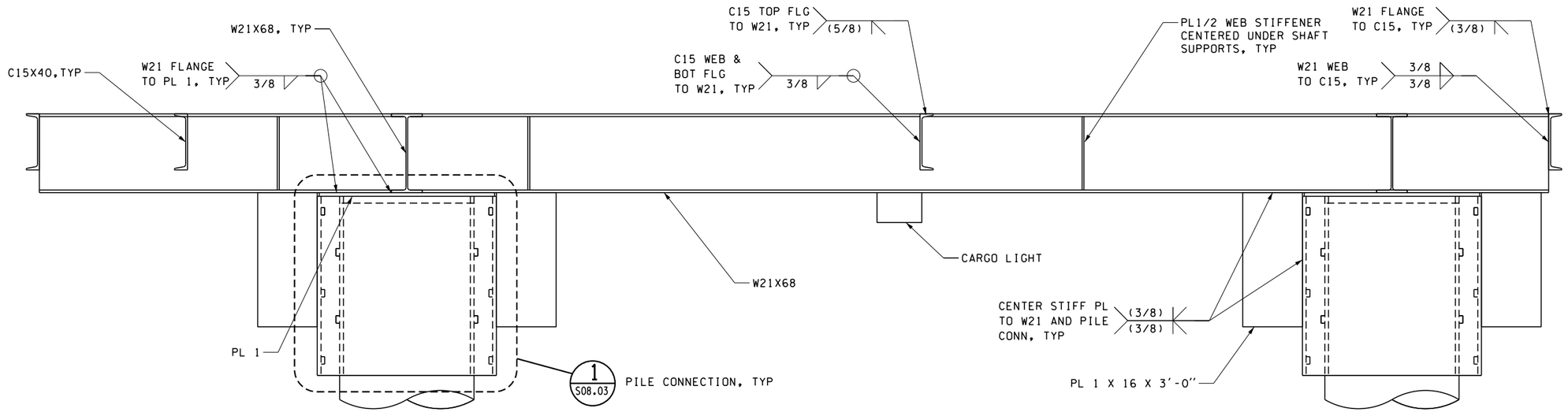
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

HEADFRAME ELEVATIONS

S08.01

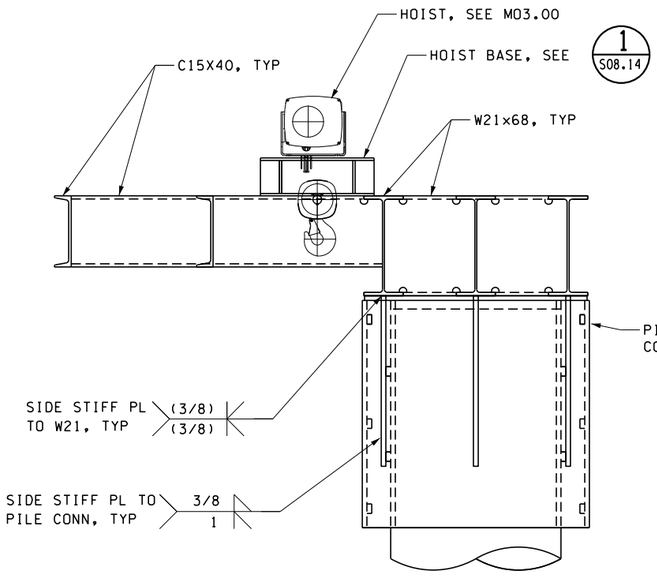
SHEET 48 OF 124 SHEETS



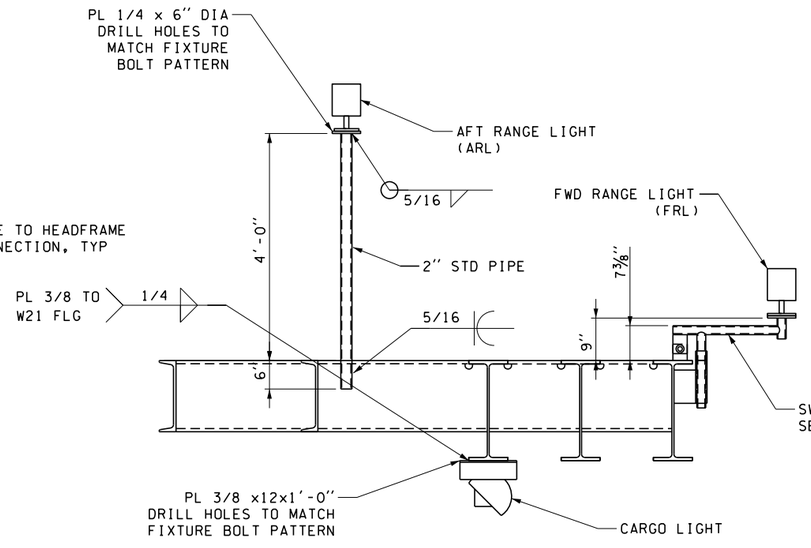
A S08.00 SECTION - HEADFRAME

NOTES

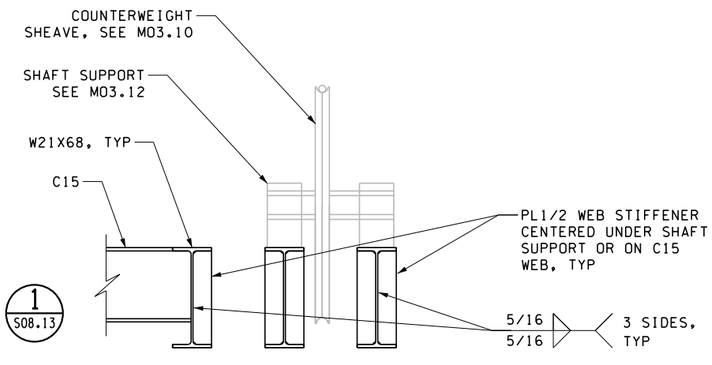
1. HEADFRAME WALKWAY GRATING AND COUNTERWEIGHT SHEAVES NOT SHOWN.



B S08.00 SECTION - AT PILE



C S08.00 SECTION - AT RANGE LIGHTS



D S08.00 SECTION - AT SHEAVE

FILE NAME: PW: WSF/Eagle Harbor/17w062SlipFtoDriveOn/PE/PE_PD/CAD/_Contract_Plans/100%\17w062s08_02.div						
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SUBMITTAL DATE: 1/11/22	morin					*-WA-***
DESIGNED BY: J. KILBORN	1/18/2022					REGION NO. 10 / STATE WASH
ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062
CHECKED BY: M. WRAY	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KILBORN — STATE OF WASHINGTON — 30260 — REGISTERED PROFESSIONAL ENGINEER

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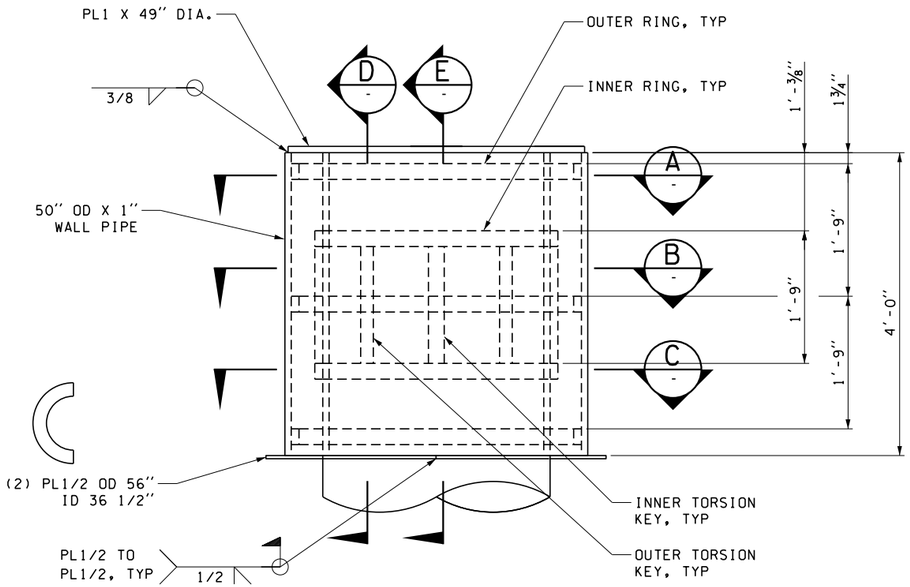
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

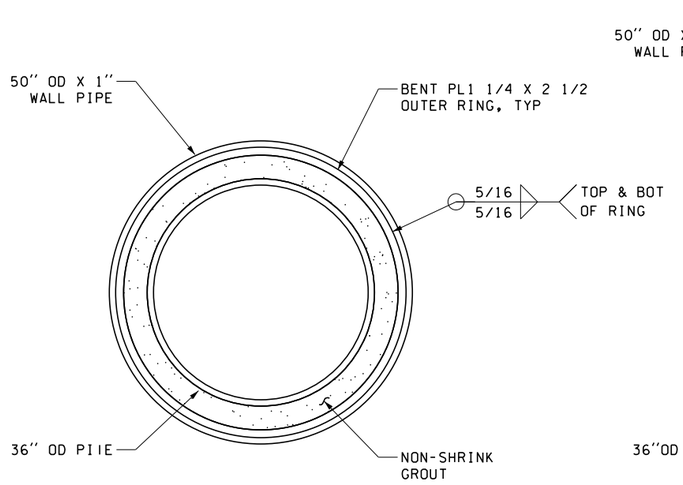
HEADFRAME SECTIONS

S08.02

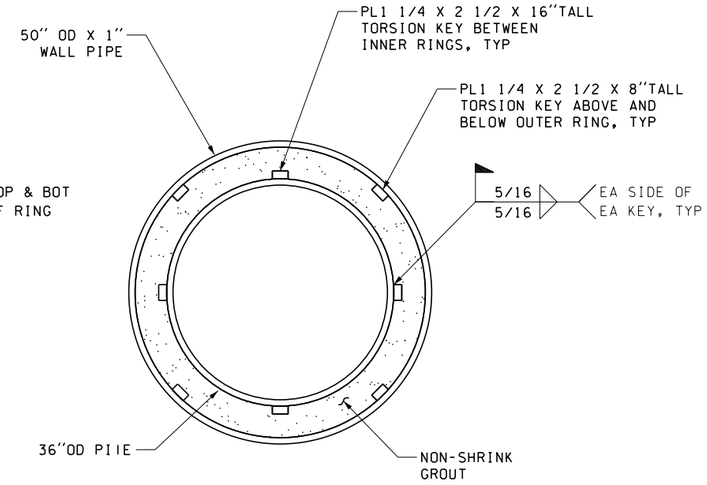
SHEET 49 OF 124 SHEETS



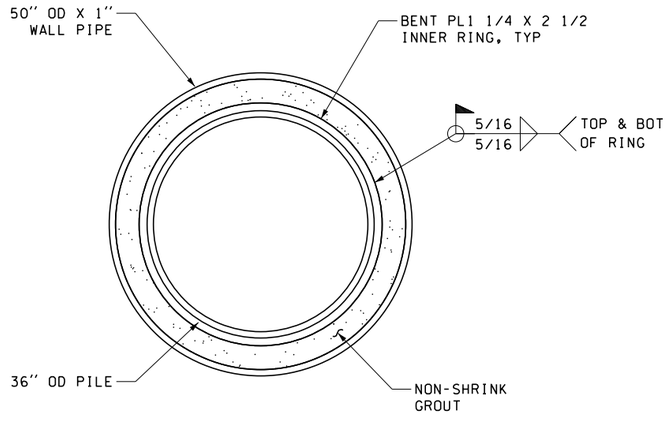
1 S08.02 ELEVATION - PILE CONNECTION



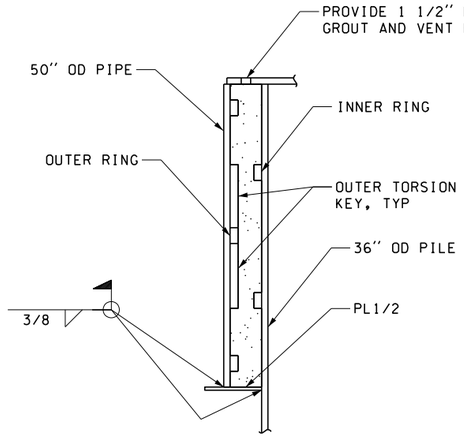
A - SECTION - OUTER RING



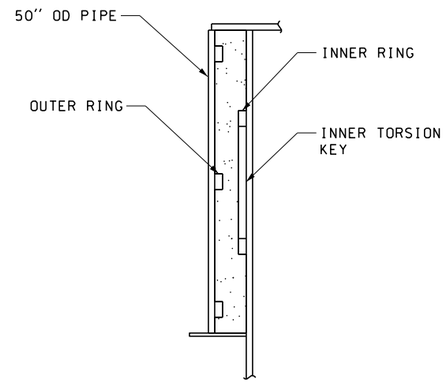
B S08.02 SECTION - TORSION KEYS



C - SECTION - INNER RING



D - SECTION



E - SECTION

NOTES

1. TOLERANCE ON 50" PIPE OD IS +/- 0.25"
2. INNER AND OUTER SHEAR RINGS MAY BE INSTALLED AS THREE INDIVIDUAL PIECES COVERING ONE THIRD THE CIRCUMFERENCE.

FILE NAME: PW: WSF/Eagle Harbor/17w062SlipFtoDriveOn/PE/PE_PD/CAD/_Contract_Plans/100%/17w062s08_03.div						
PRINTED: 9:31:22 AM 1/18/2022	LAST PRINTED BY:					FED.AID PROJ.NO.
SUBMITTAL DATE: 1/11/22	morin					*-WA-***
DESIGNED BY: R. JENS	1/18/2022					REGION NO. STATE
ENTERED BY: M. ENOS	1/18/2022					10 WASH
CHECKED BY: M. WRAY	1/18/2022					JOB NUMBER 17W062
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						CONTRACT NO. 00****
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KILBURN — STATE OF WASHINGTON — 30260 — PROFESSIONAL ENGINEER

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Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

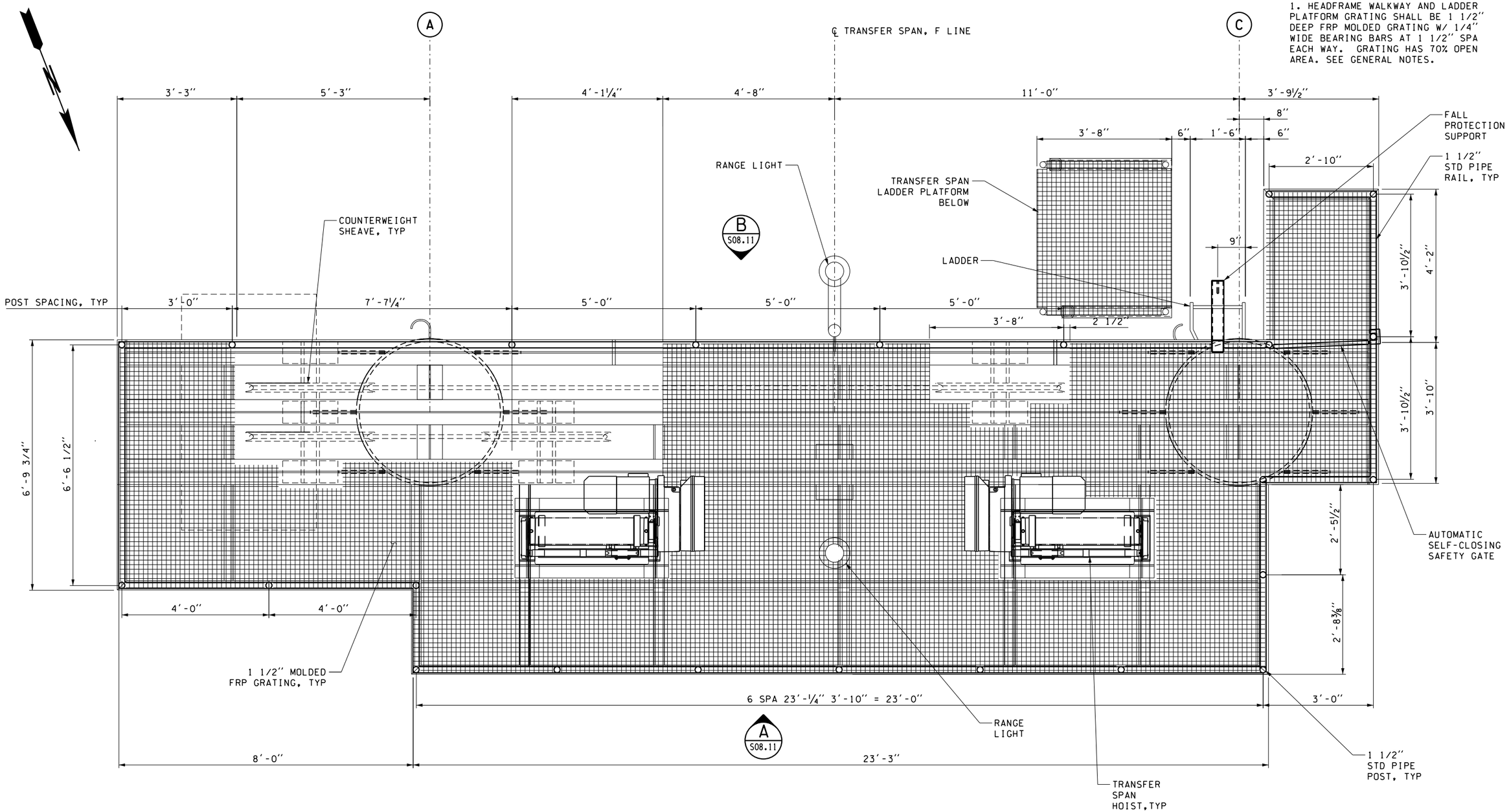
HEADFRAME TO PILE CONNECTION

S08.03

SHEET 50 OF 124 SHEETS

NOTEs

1. HEADFRAME WALKWAY AND LADDER PLATFORM GRATING SHALL BE 1 1/2" DEEP FRP MOLDED GRATING W/ 1/4" WIDE BEARING BARS AT 1 1/2" SPA EACH WAY. GRATING HAS 70% OPEN AREA. SEE GENERAL NOTES.



PLAN - HEADFRAME WALKWAY

FILE NAME: PW: WSF/Eagle Harbor/17w062SlipFtoDriveOn/PE/PE_PD/CAD/_Contract_Plans/100%/17w062s08_10.dlv						
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SUBMITTAL DATE: 1/11/22	morin					
DESIGNED BY: J. KILBORN	1/18/2022					*-WA-***
ENTERED BY: M. MORIN	1/18/2022					REGION NO. STATE
CHECKED BY: M. WRAY	1/18/2022					10 WASH
MAR PROJ ENGR: T. CASTOR	1/18/2022					JOB NUMBER 17W062
DGN ENGR MNGR:						CONTRACT NO. 00****
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KILBORN — STATE OF WASHINGTON — 50260 — PROFESSIONAL ENGINEER

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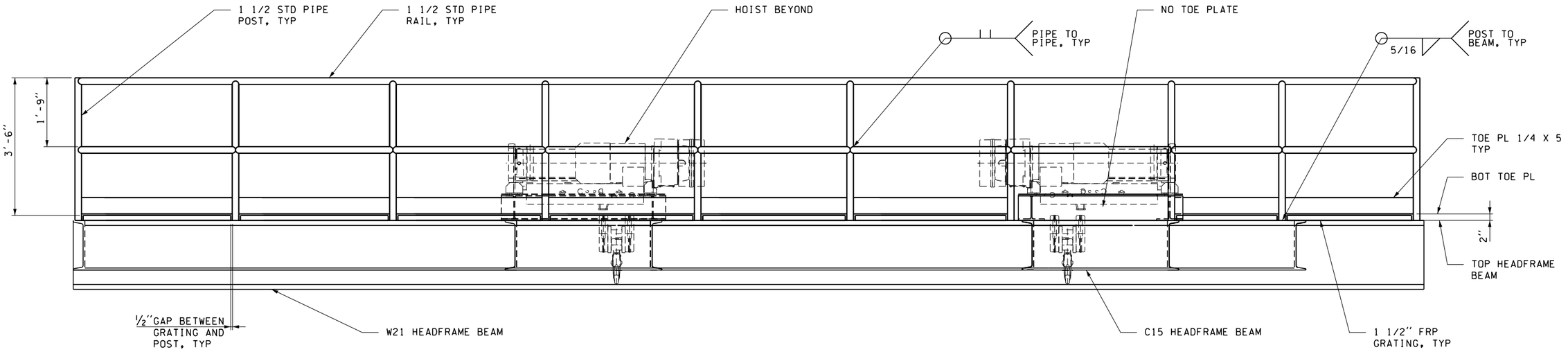
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

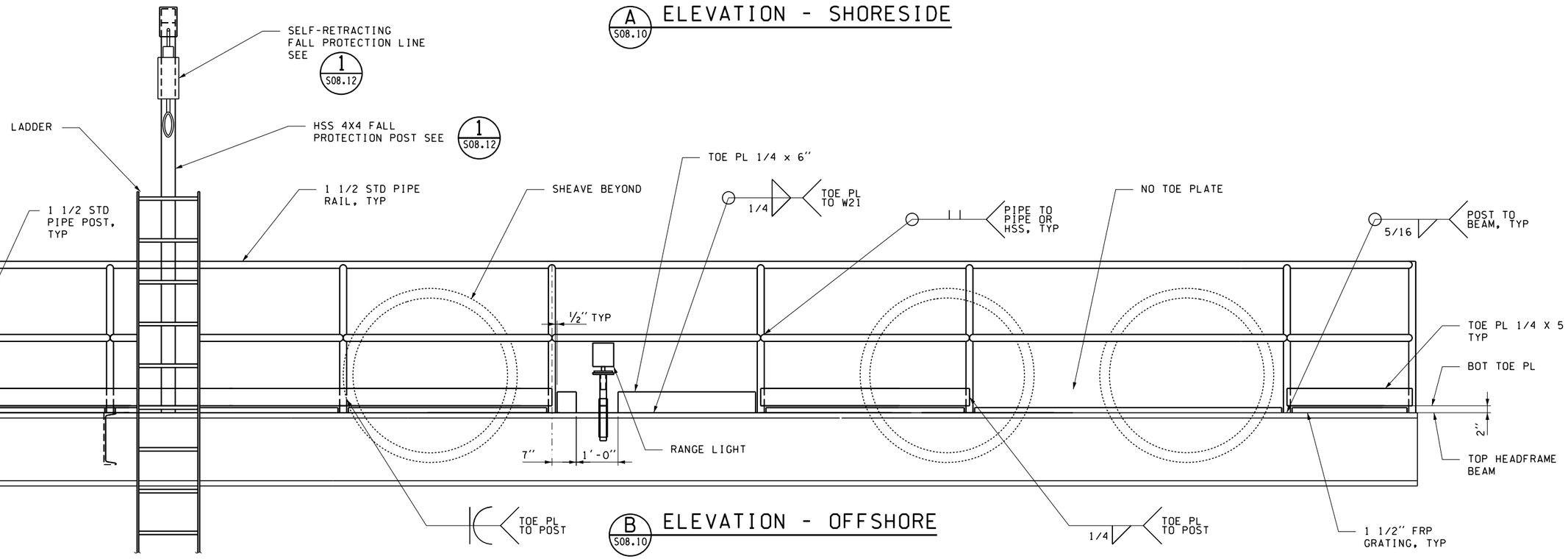
HEADFRAME WALKWAY PLAN

S08.10

SHEET 51 OF 124 SHEETS



A S08.10 ELEVATION - SHORESIDE



B S08.10 ELEVATION - OFFSHORE

FILE NAME: PW: WSF/Eagle Harbor/17w062SlipFtoDriveOn/PE/PE_PD/CAD/_Contract_Plans/100%\17w062s08_11.dlv						
PRINTED: 9:31:35 AM 1/18/2022	LAST PRINTED BY:				FED.AID PROJ.NO.	
SUBMITTAL DATE: 1/11/22	morin				*-WA-***	
DESIGNED BY: J. KILBORN	1/18/2022				REGION NO. 10	STATE WASH
ENTERED BY: M. MORIN	1/18/2022				JOB NUMBER 17W062	
CHECKED BY: M. WRAY	1/18/2022				CONTRACT NO. 00****	
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KILBORN — STATE OF WASHINGTON — 30260 — PROFESSIONAL ENGINEER

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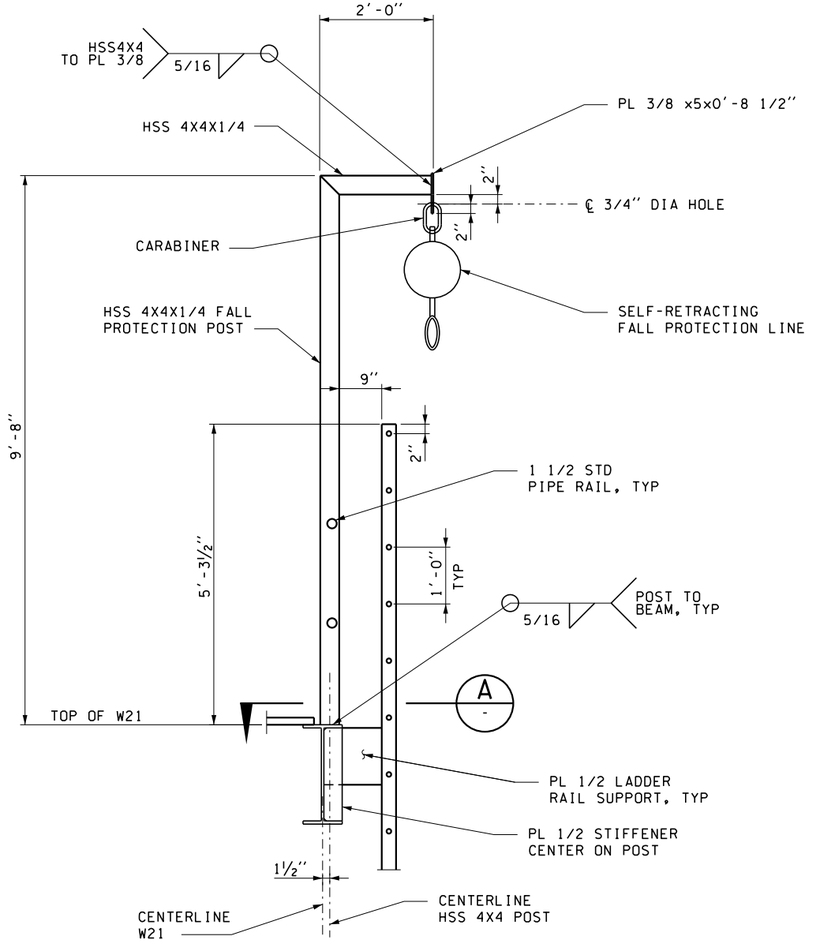
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

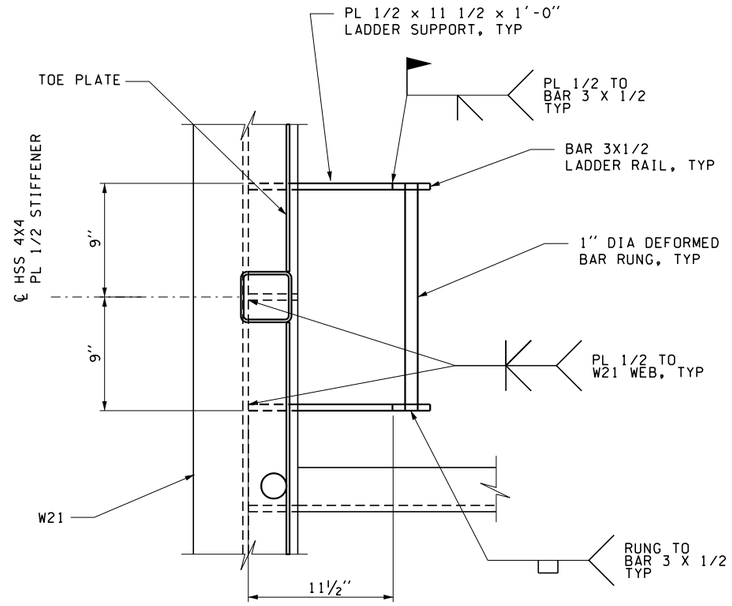
HEADFRAME WALKWAY ELEVATIONS

S08.11

SHEET 52 OF 124 SHEETS

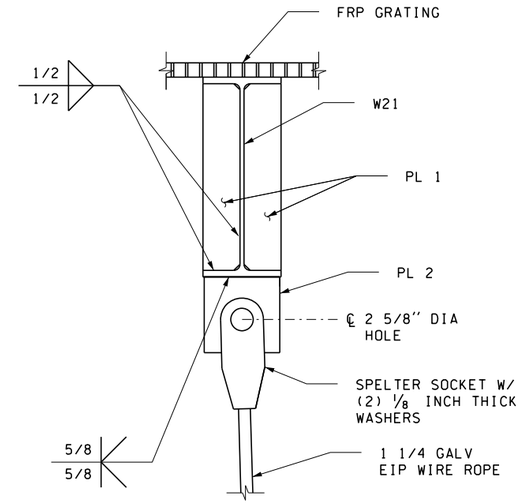


1 S08.11 DETAIL

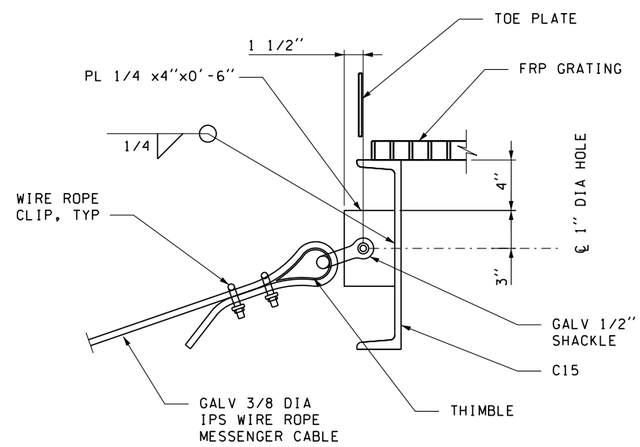


NOTE: FRP GRATING NOT SHOWN

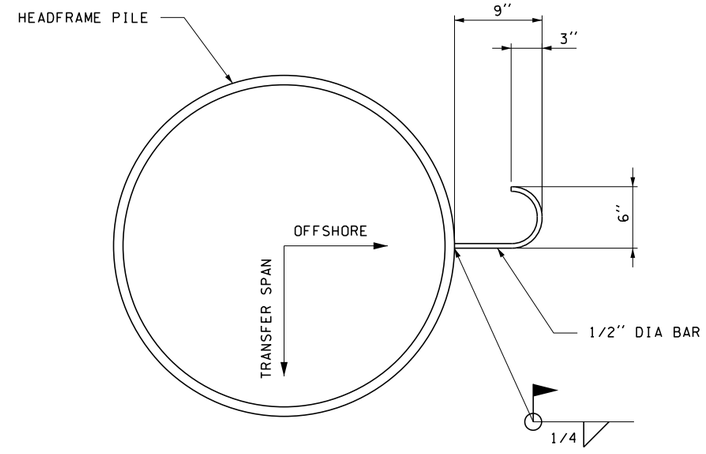
A - VIEW



2 S08.01 DETAIL - HANGER CONN



B S08.00 SECTION



3 S08.01 DETAIL - HANGER HOOK

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SUBMITTAL DATE: 1/11/22	morin					*-WA-***
DESIGNED BY: J. KILBORN	1/18/2022					REGION NO. 10 / STATE WASH
ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062
CHECKED BY: M. WRAY	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KILBORN — STATE OF WASHINGTON — 30260 — PROFESSIONAL ENGINEER

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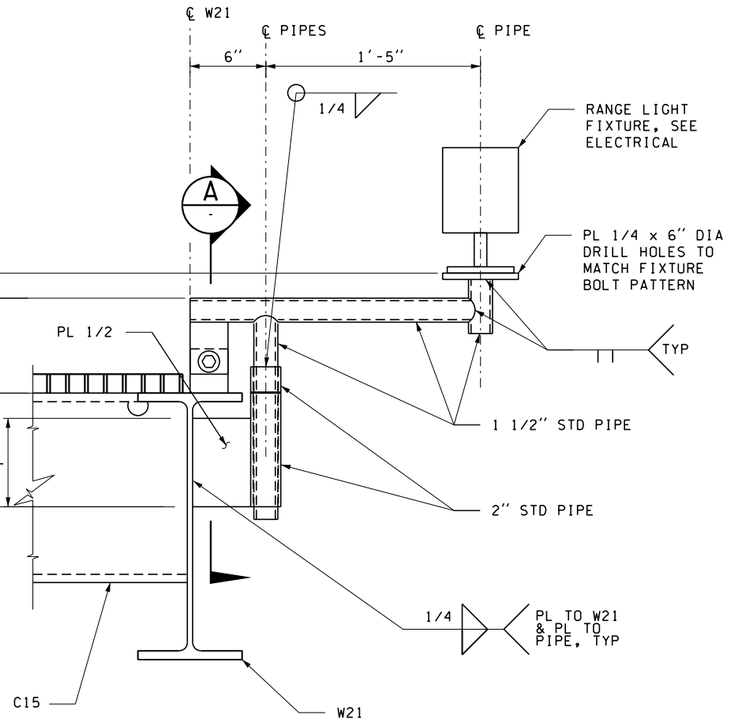
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

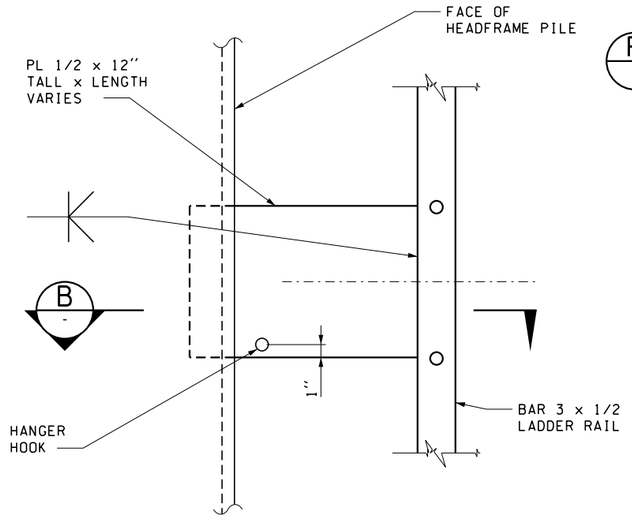
HEADFRAME WALKWAY DETAILS I

S08.12

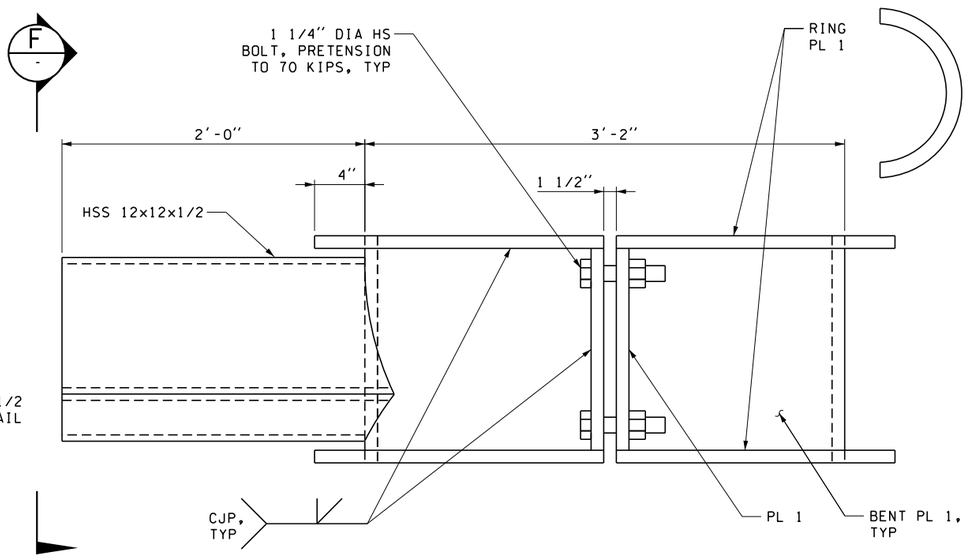
SHEET 53 OF 124 SHEETS



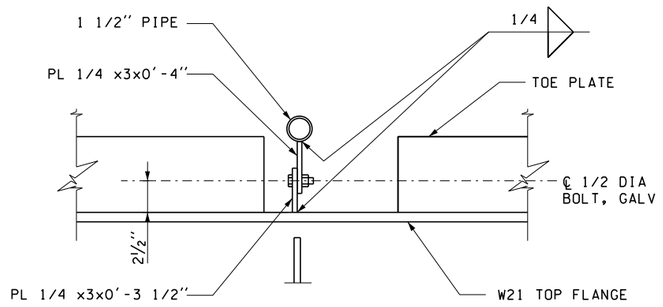
1 S08.02 DETAIL-RANGE LIGHT



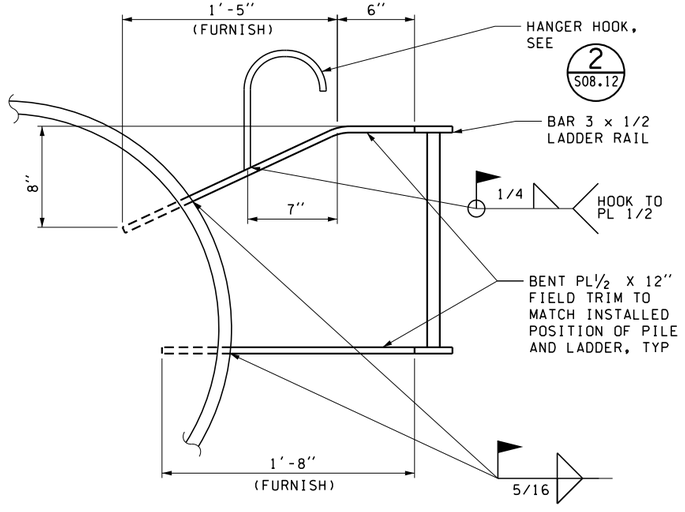
2 S04.01 DETAIL-LADDER SUPPORT



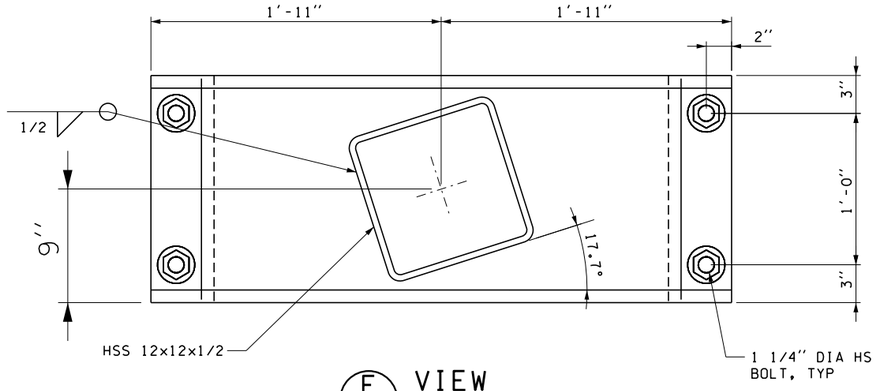
3 S08.01 DETAIL



A SECTION



B SECTION



F VIEW

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DESIGNED BY: J. KILBORN	1/18/2022					*-WA-***
ENTERED BY: M. MORIN	1/18/2022					REGION NO. STATE
CHECKED BY: M. WRAY	1/18/2022					10 WASH
MAR PROJ ENGR: T. CASTOR	1/18/2022					JOB NUMBER 17W062
DGN ENGR MNGR:						CONTRACT NO. 00****
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KILBORN — STATE OF WASHINGTON — 30260 — REGISTERED PROFESSIONAL ENGINEER

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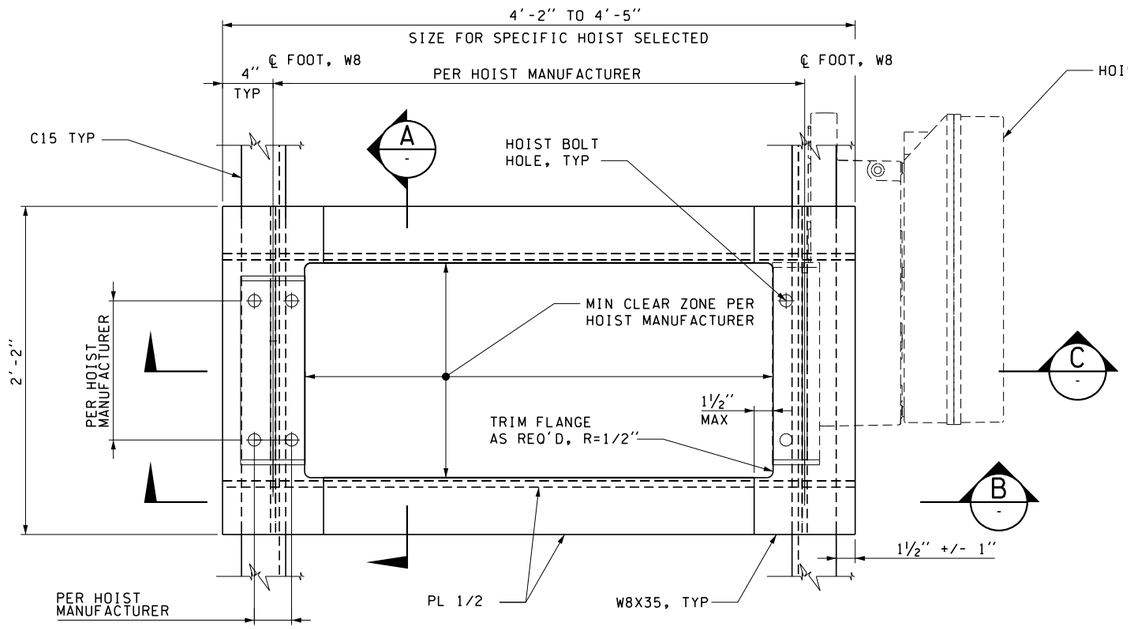
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

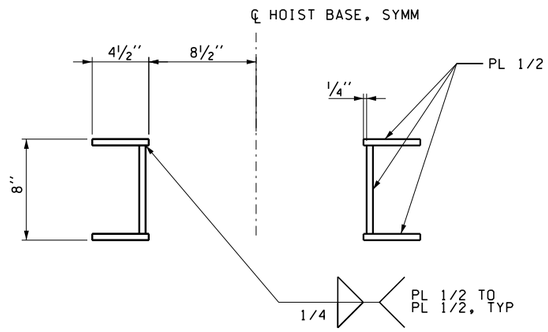
HEADFRAME WALKWAY DETAILS II

S08.13

SHEET 54 OF 124 SHEETS



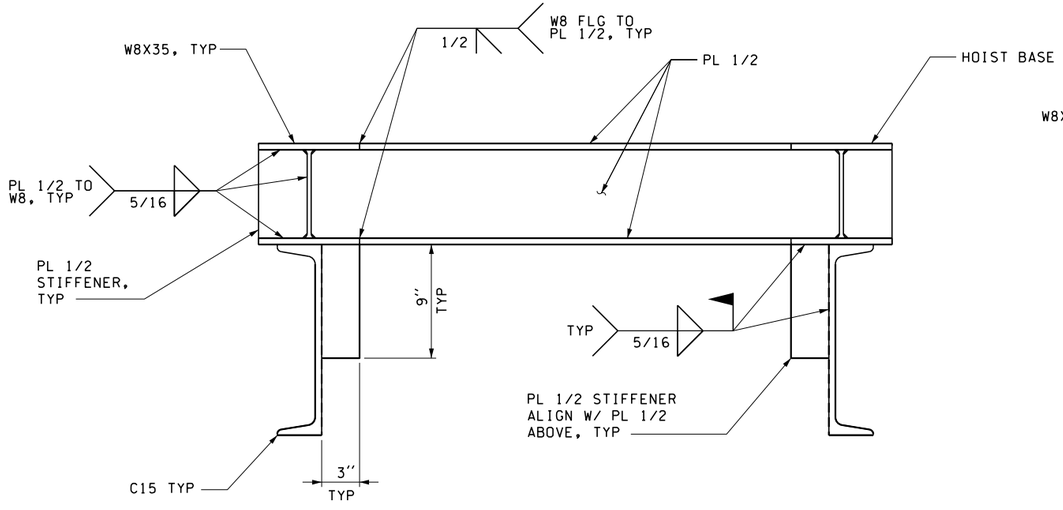
1 / S08.00 DETAIL - HOIST BASE



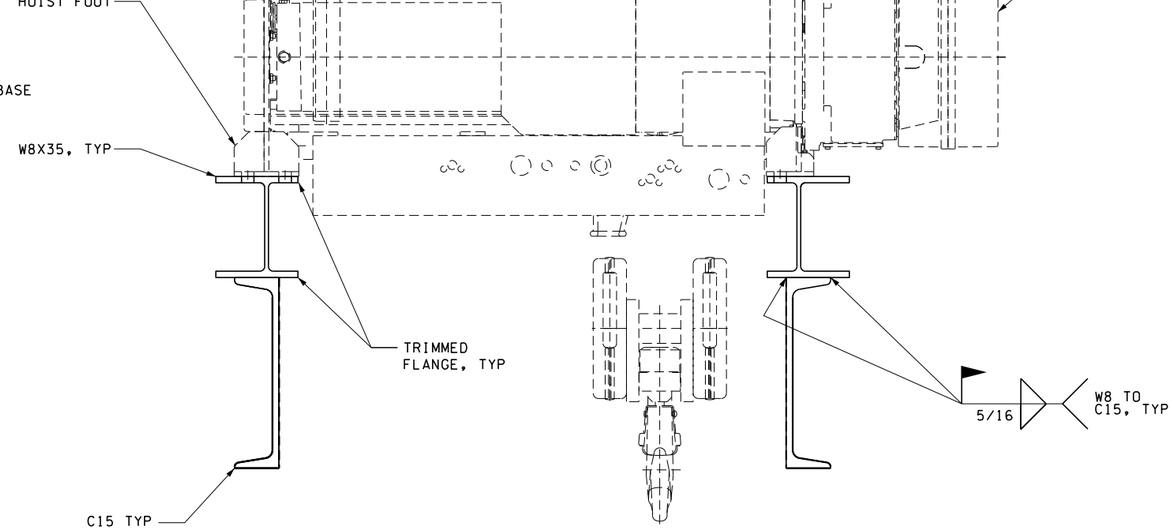
A - SECTION

NOTES

1. HOIST BASE IS AN OPEN FRAME THAT MAY BE FIELD POSITIONED TO ALIGN WITH THE TRANSFER SPAN BELOW AND THEN WELDED TO THE HEADFRAME CHANNELS. SEE M03.01 FOR PLAN POSITION OF HOIST.
2. TRIM FRP GRATING TO WITHIN 3/4 INCH OF HOIST BASE TO MATCH FINAL POSITION.
3. HOIST BOLT HOLE SIZES, LOCATIONS, AND CLEAR ZONES BENEATH THE HOIST SHALL BE COORDINATED WITH HOIST MANUFACTURER'S DATA AND RECOMMENDATIONS.



B - SECTION



C - SECTION

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SUBMITTAL DATE: 1/11/22	morin					
DESIGNED BY: J. KILBORN	1/18/2022					*-WA-***
ENTERED BY: M. MORIN	1/18/2022					REGION NO. STATE
CHECKED BY: M. WRAY	1/18/2022					10 WASH
MAR PROJ ENGR: T. CASTOR	1/18/2022					JOB NUMBER 17W062
DGN ENGR MNGR:						CONTRACT NO. 00****
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JEFFREY PAUL KILBORN — STATE OF WASHINGTON — 20260 — PROFESSIONAL ENGINEER

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Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

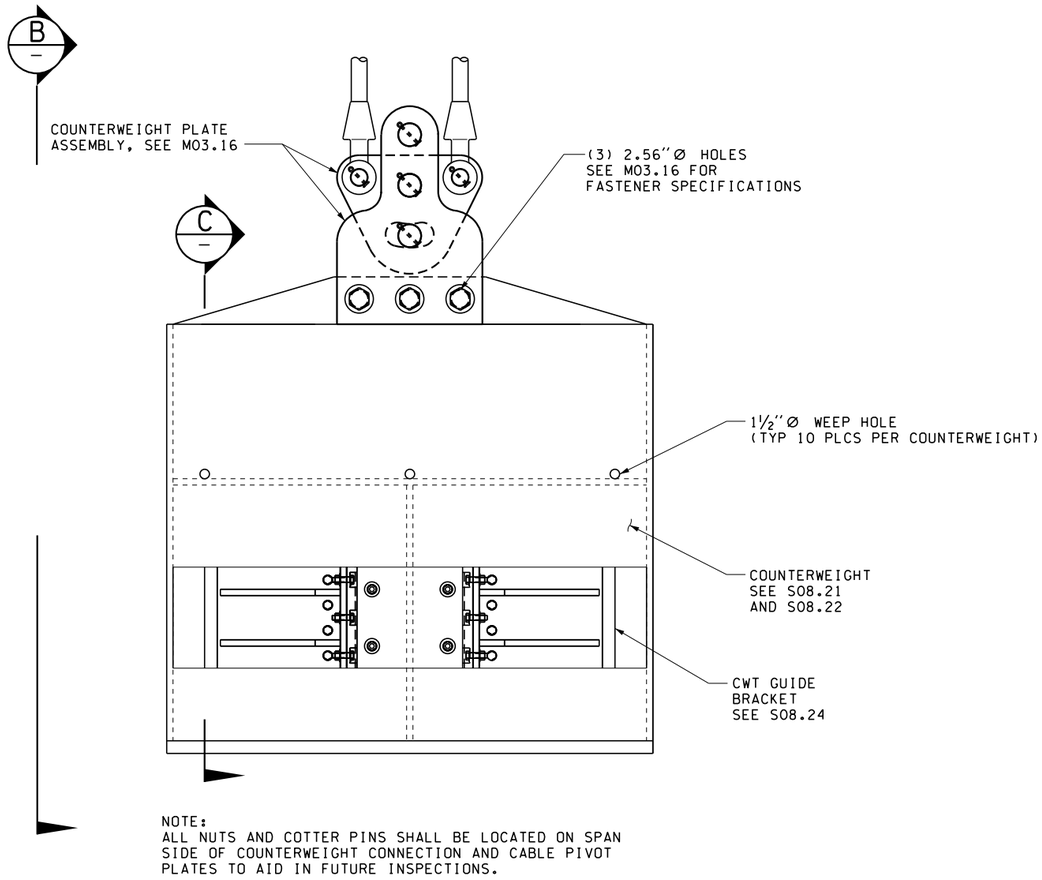
HEADFRAME WALKWAY DETAILS III

S08.14

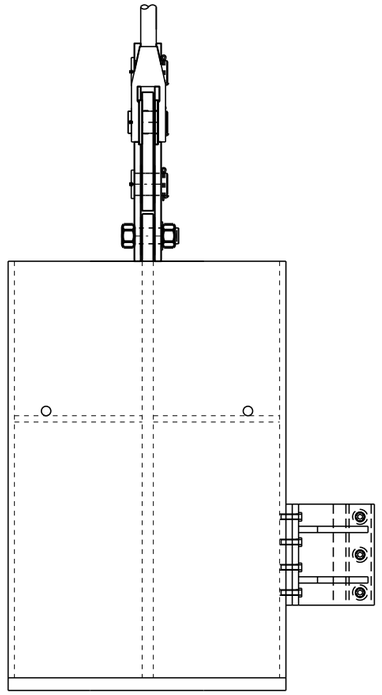
SHEET 55 OF 124 SHEETS

NOTES:

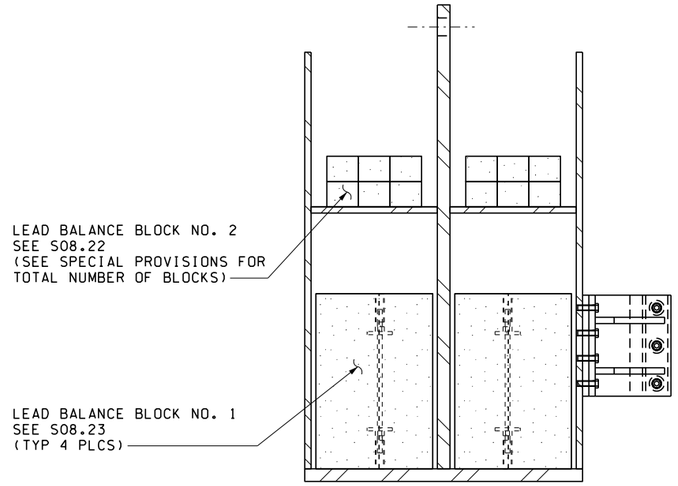
1. ALL BOLTED CONNECTIONS ARE SLIP-CRITICAL, SEE SECTION 6-03.3(33) OF THE CURRENT STANDARD SPECIFICATIONS FOR FURTHER INFORMATION ON BOLTED CONNECTIONS.
2. INSIDE AND OUTSIDE OF COUNTERWEIGHT SHALL BE COATED IN ACCORDANCE WITH THE SPECIAL PROVISIONS.



A / S08.01 LEFT TOWER COUNTERWEIGHT ASSEMBLY SPAN SIDE ELEVATION



B / – LEFT TOWER COUNTERWEIGHT ASSEMBLY SHORE SIDE ELEVATION



C / – SECTION

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SUBMITTAL DATE: 1/11/22	morin					*-WA-***
DESIGNED BY: C. STEARNS	1/18/2022					REGION NO. 10 / STATE WASH
ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062
CHECKED BY: J. FRISBY	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JOHN W. FRISBY — STATE OF WASHINGTON — 34394 — REGISTERED PROFESSIONAL ENGINEER — SEE CT01.00

CHRISTOPHER STEARNS — STATE OF WASHINGTON — 19202 — PROFESSIONAL ENGINEER — SEE CT01.00

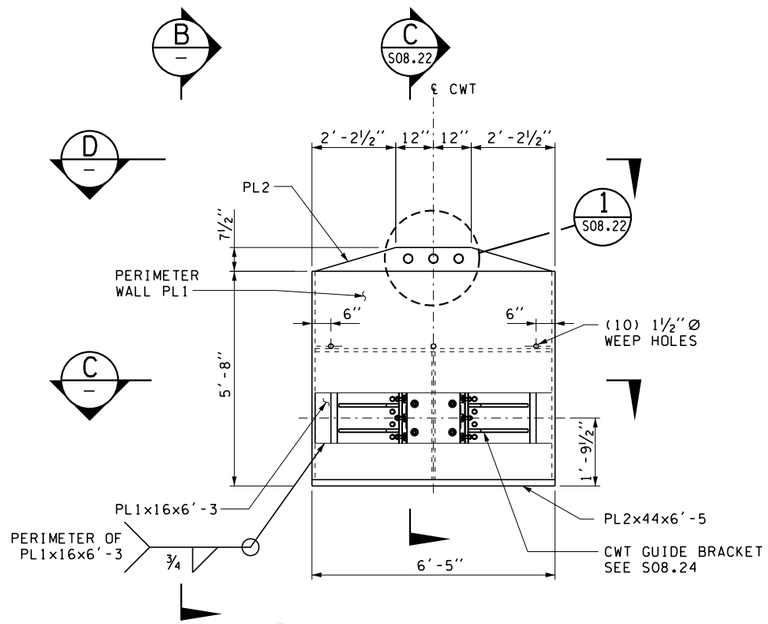
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

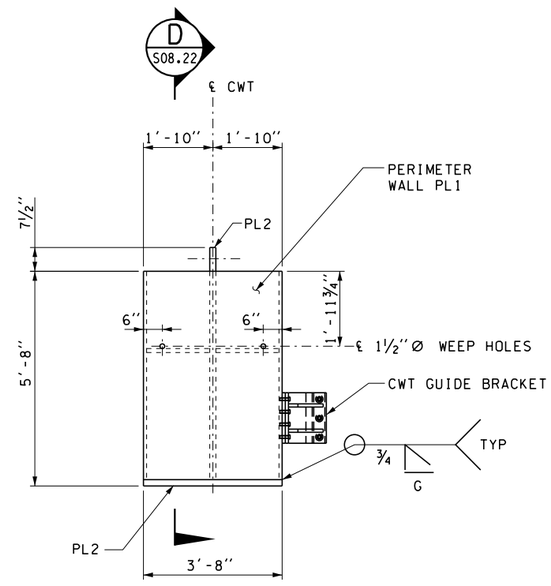
SPAN COUNTERWEIGHT ASSEMBLY

S08.20

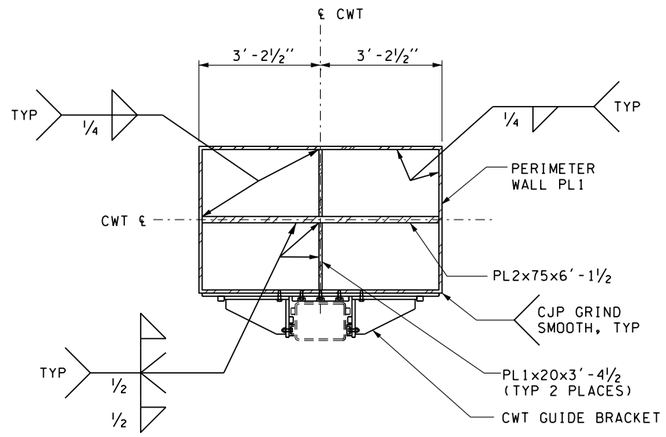
SHEET 56 OF 124 SHEETS



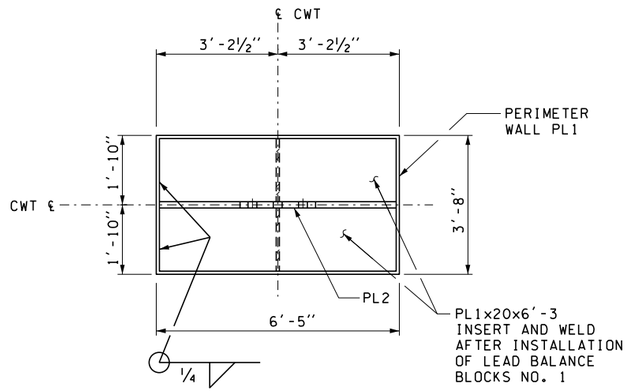
A – SPAN SIDE ELEVATION



B – SHORE SIDE ELEVATION



C – SECTION



D – SECTION

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DESIGNED BY: C. STEARNS	1/18/2022					REGION NO. 10	STATE WASH
ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062	
CHECKED BY: J. FRISBY	1/18/2022					CONTRACT NO. 00****	
MAR PROJ ENGR: T. CASTOR	1/18/2022						
DGN ENGR MNGR:							
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY			

JOHN W. FRISBY — STATE OF WASHINGTON — 34394 — REGISTERED PROFESSIONAL ENGINEER
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CHRISTOPHER STEARNS — STATE OF WASHINGTON — 46202 — PROFESSIONAL ENGINEER
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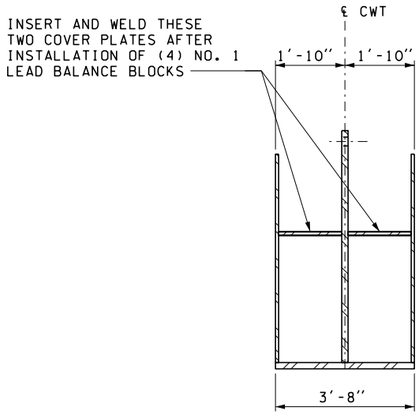
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

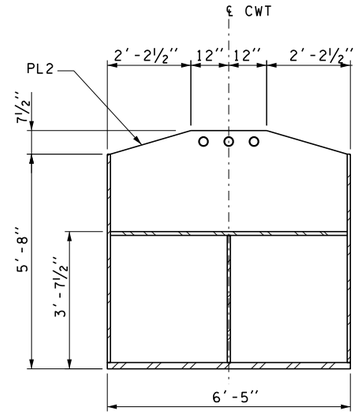
COUNTERWEIGHT DETAILS I

S08.21

SHEET 57 OF 124 SHEETS



C S08.21 SECTION



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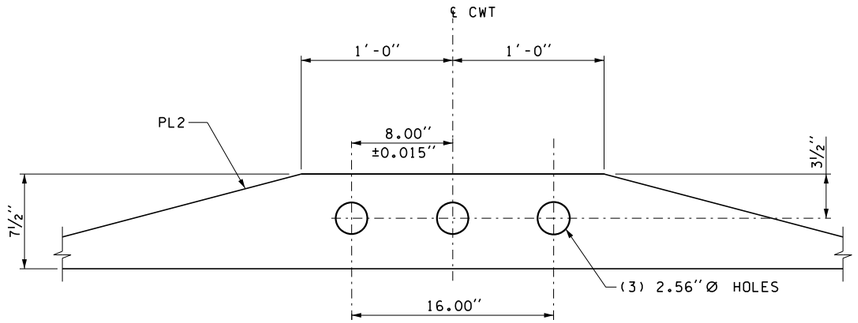

1 S08.21 DETAIL

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SUBMITTAL DATE: 1/11/22	morin					
DESIGNED BY: C. STEARNS	1/18/2022					*-WA-***
ENTERED BY: M. MORIN	1/18/2022					REGION NO. STATE
CHECKED BY: J. FRISBY	1/18/2022					10 WASH
MAR PROJ ENGR: T. CASTOR	1/18/2022					JOB NUMBER 17W062
DGN ENGR MNGR:						CONTRACT NO. 00****
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JOHN W. FRISBY — STATE OF WASHINGTON — 34394 — REGISTERED PROFESSIONAL ENGINEER
SEE CT01.00

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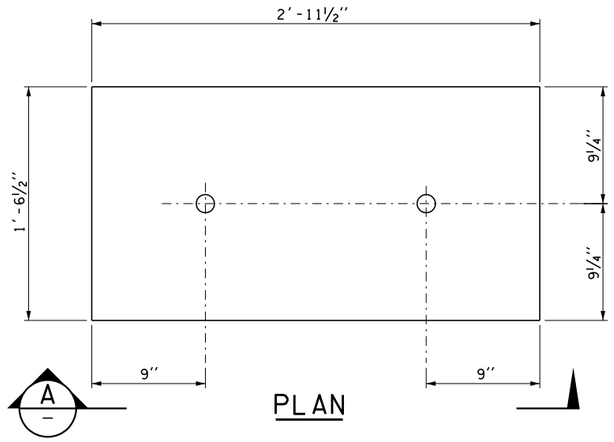
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

COUNTERWEIGHT DETAILS II

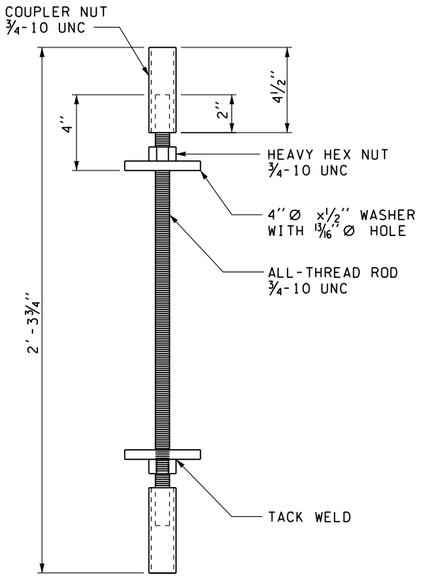
S08.22

SHEET 58 OF 124 SHEETS

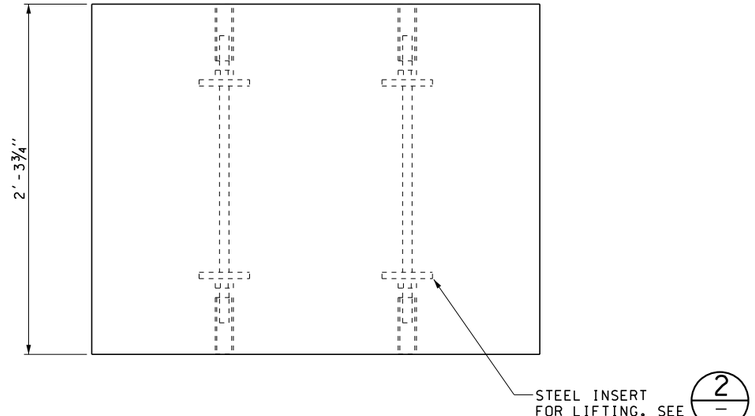


PLAN

1 / S08.20 LEAD BALANCE BLOCK NO. 1



2 / — DETAIL



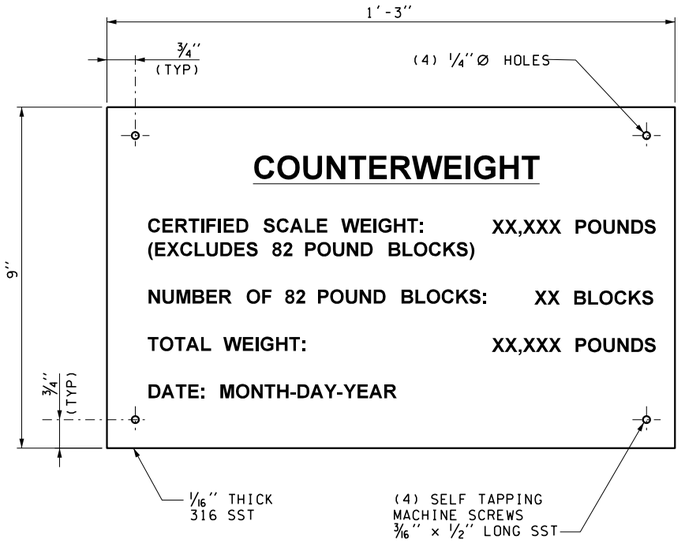
A / — ELEVATION

NOTES:

1. LEAD BALANCE BLOCK NO. 1 WITH STEEL INSERTS SHALL WEIGH APPROXIMATELY 7462 POUNDS.
2. LEAD BALANCE BLOCK NO. 2 SHALL HAVE DIMENSIONS 4"x5"x10" AND WEIGH APPROXIMATELY 82 POUNDS.

MATERIALS:

1. LEAD QQ-L-171, GRADE B
2. WASHERS: F436 TYPE 1.



NOTES:

1. ENGRAVE PLATE AFTER THE COMPLETION OF TRANSFER SPAN BALANCING.
2. TOP LINE SHALL HAVE ⅝" HIGH LETTERING. ALL OTHER LINES SHALL HAVE ⅜" HIGH LETTERING.
3. ALL LETTERING SHALL HAVE A BLACK FILL AFTER ENGRAVING.
4. PLATE TO BE PLACED ON TRANSFER SPAN HANDRAIL IN FRONT OF COUNTERWEIGHT, SEE B / S08.01

3 / S08.01 COUNTERWEIGHT PLACARD

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DESIGNED BY: C. STEARNS	1/18/2022					REGION NO. 10 / STATE WASH
ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062
CHECKED BY: J. FRISBY	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

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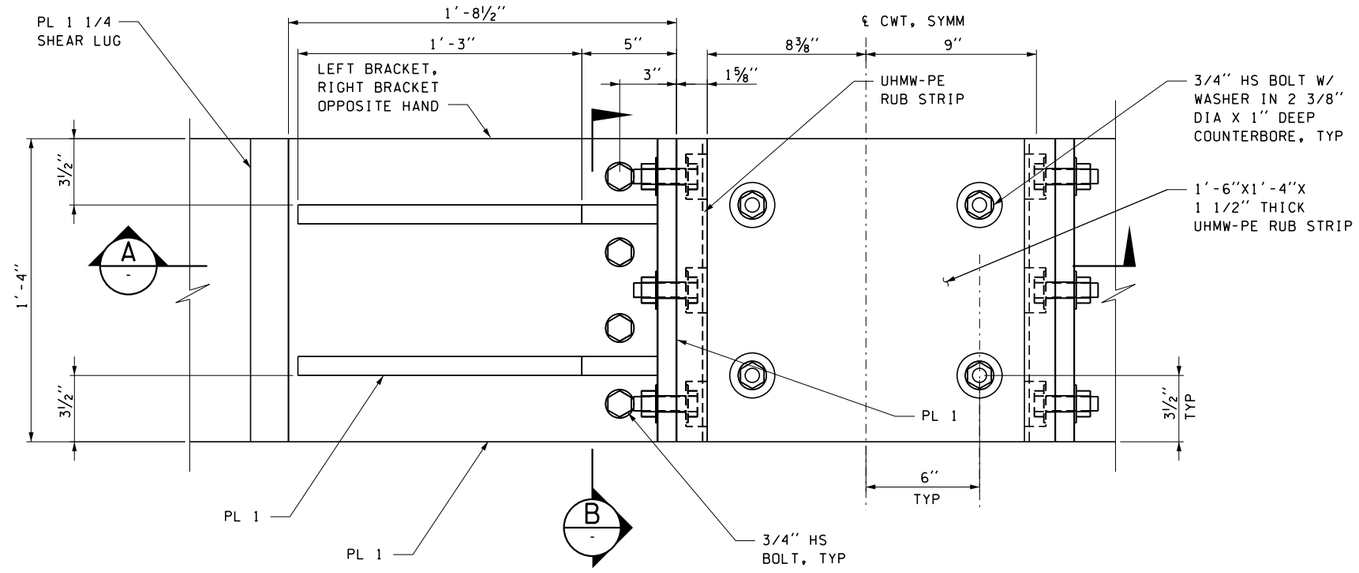
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

LEAD BALANCE BLOCKS

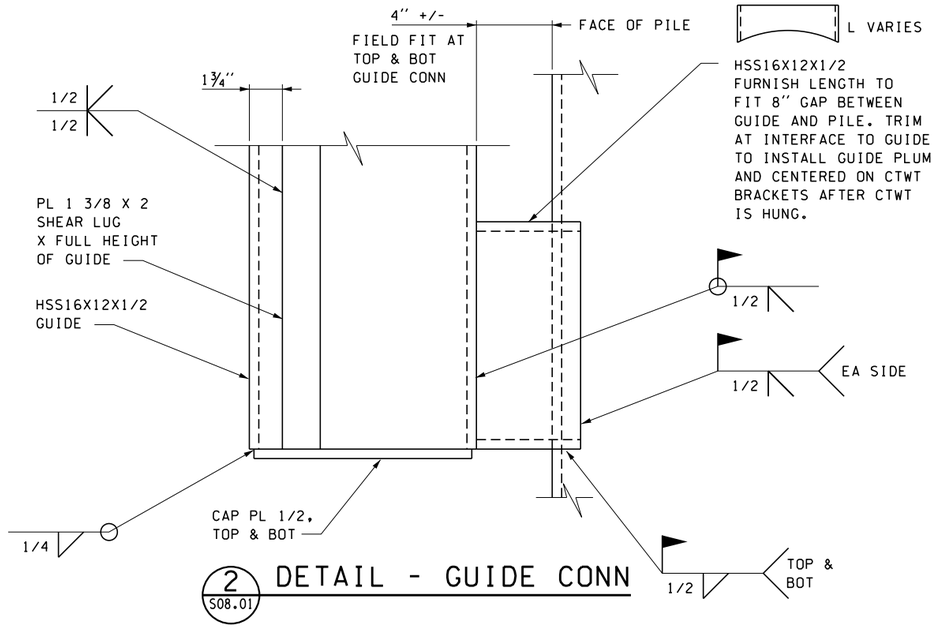
S08.23

SHEET 59 OF 124 SHEETS

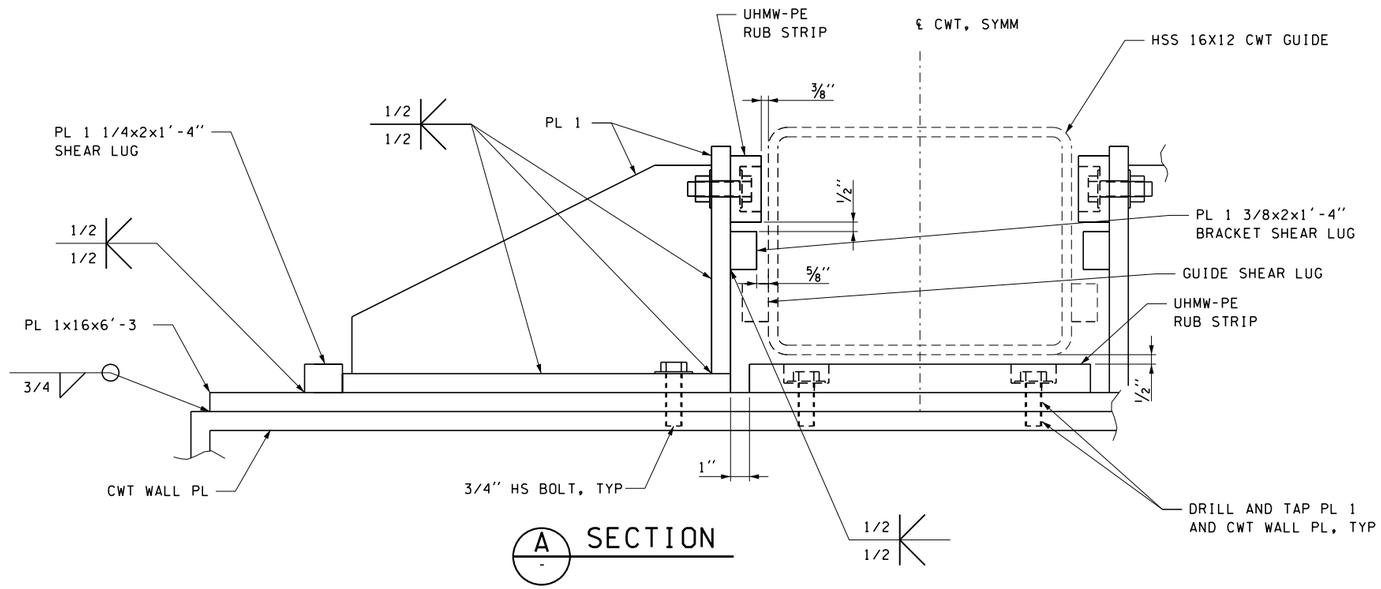


1 S08.21 DETAIL

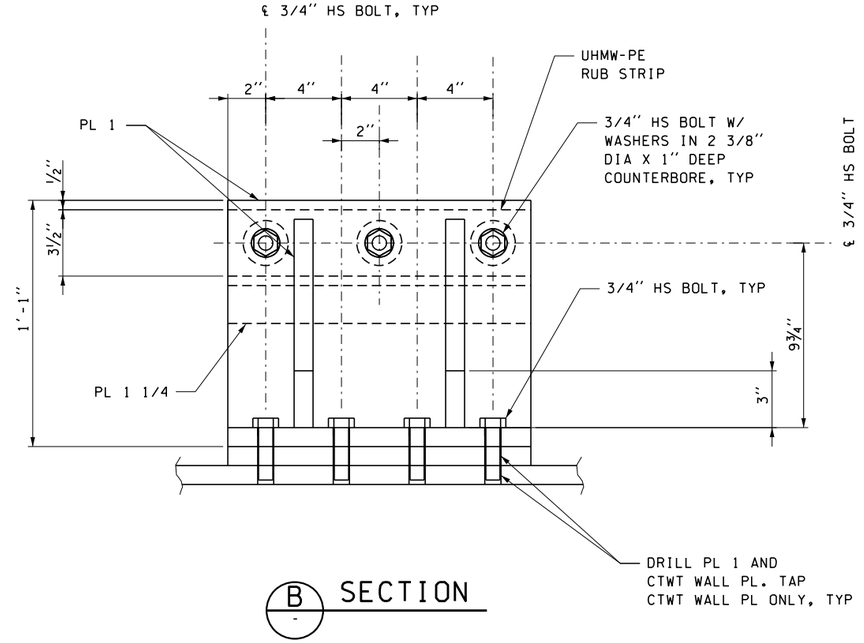
NOTE: HSS 16X12 CWT GUIDE NOT SHOWN



2 S08.01 DETAIL - GUIDE CONN



A - SECTION



B - SECTION

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ENTERED BY: M. MORIN	1/18/2022					10 WASH
CHECKED BY: M. WRAY	1/18/2022					JOB NUMBER
MAR PROJ ENGR: T. CASTOR	1/18/2022					17W062
DGN ENGR MNGR:						CONTRACT NO.
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		00****

JEFFREY PAUL KILBORN — STATE OF WASHINGTON — 30260 — PROFESSIONAL ENGINEER

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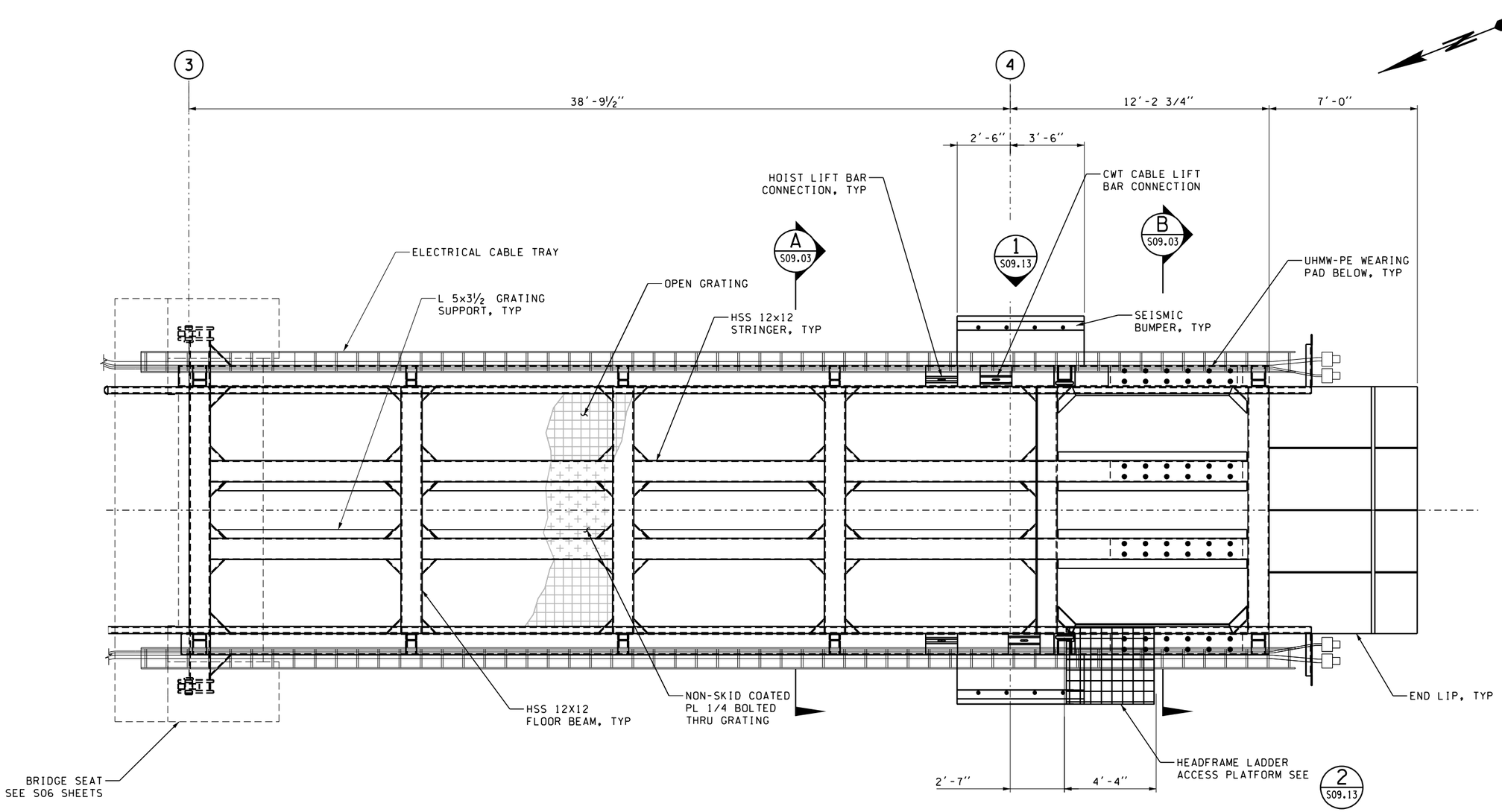
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

COUNTERWEIGHT GUIDE DETAILS I

S08.24

SHEET 60 OF 124 SHEETS



PLAN - TRANSFER SPAN

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SUBMITTAL DATE: 1/11/22	morin					*-WA-***
DESIGNED BY: R. JENS	1/18/2022					REGION NO. 10 / STATE WASH
ENTERED BY: M. ENOS	1/18/2022					
CHECKED BY: M. WRAY	1/18/2022					JOB NUMBER 17W062
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						CONTRACT NO. 00****
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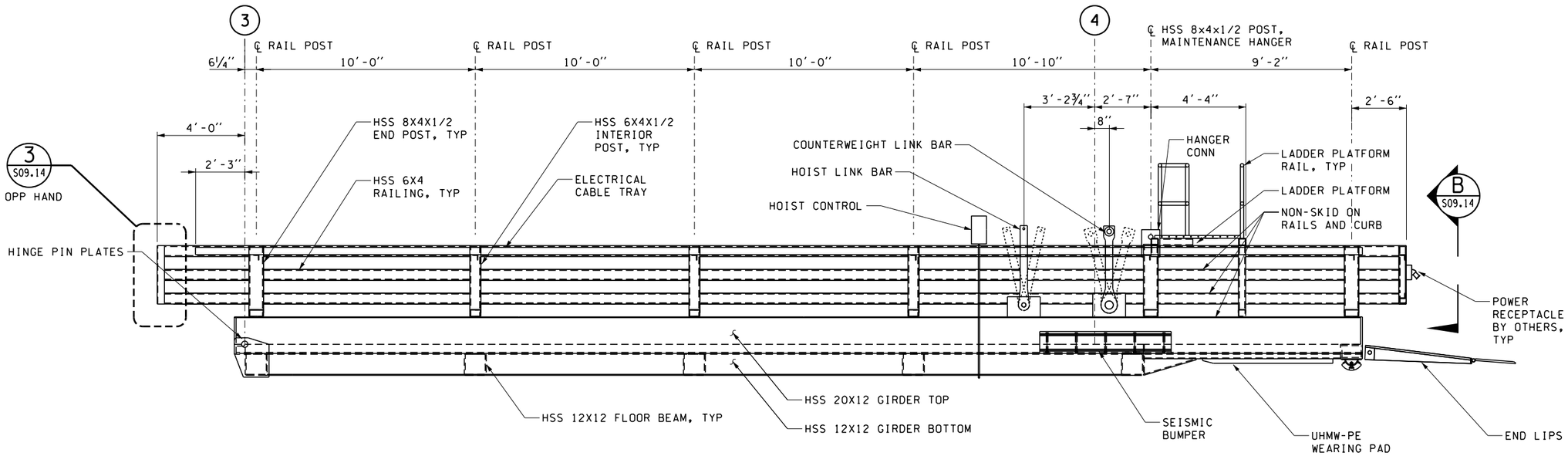
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

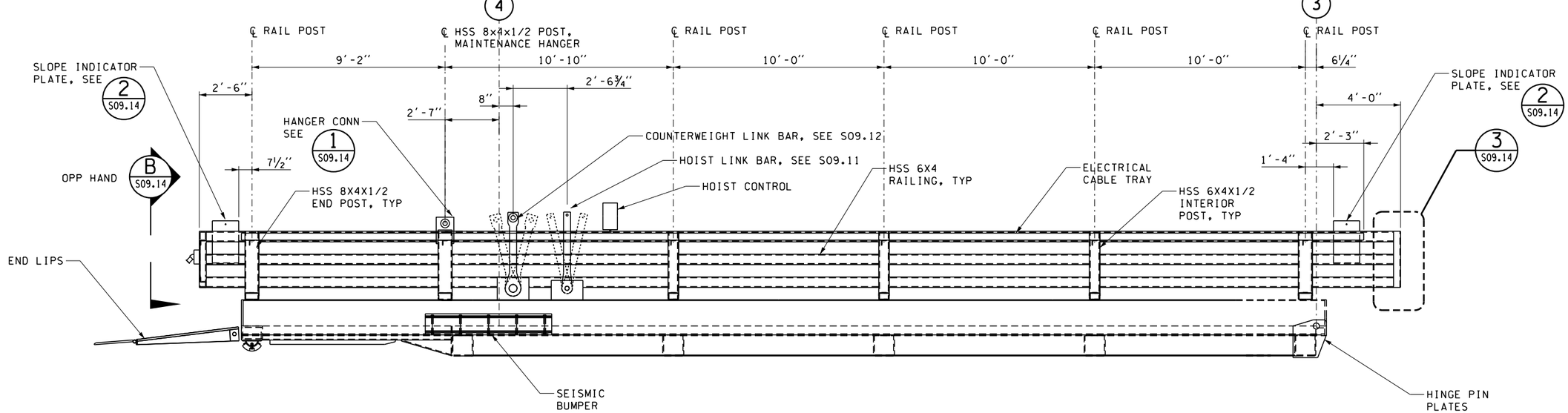
TRANSFER SPAN ASSEMBLY PLAN

S09.00

SHEET 61 OF 124 SHEETS



ELEVATION - RIGHT SIDE



ELEVATION - LEFT SIDE

NOTE: FOR INFORMATION NOT SHOWN SEE RIGHT SIDE ELEVATION

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CHECKED BY: M. WRAY	1/20/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/20/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KLEIDON — STATE OF WASHINGTON — 30260 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

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Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

TRANSFER SPAN EXTERIOR ELEVATIONS

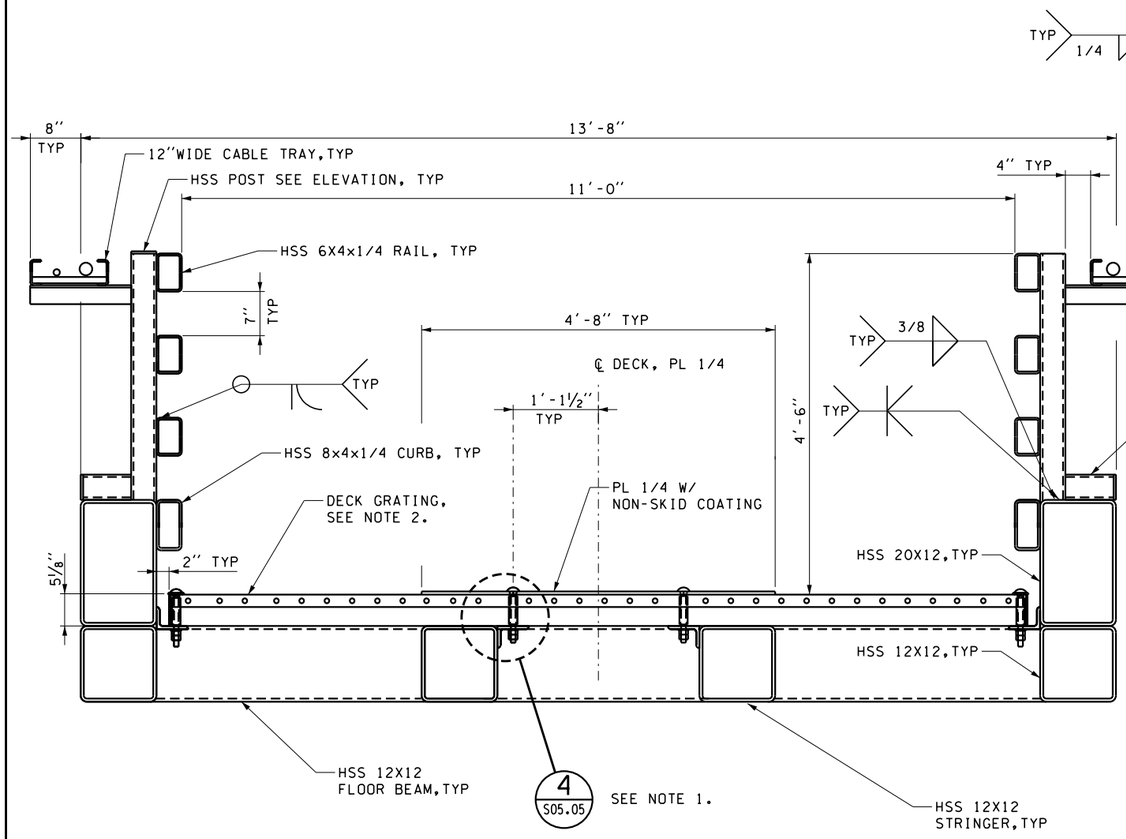
S09.01

SHEET 62 OF 124 SHEETS

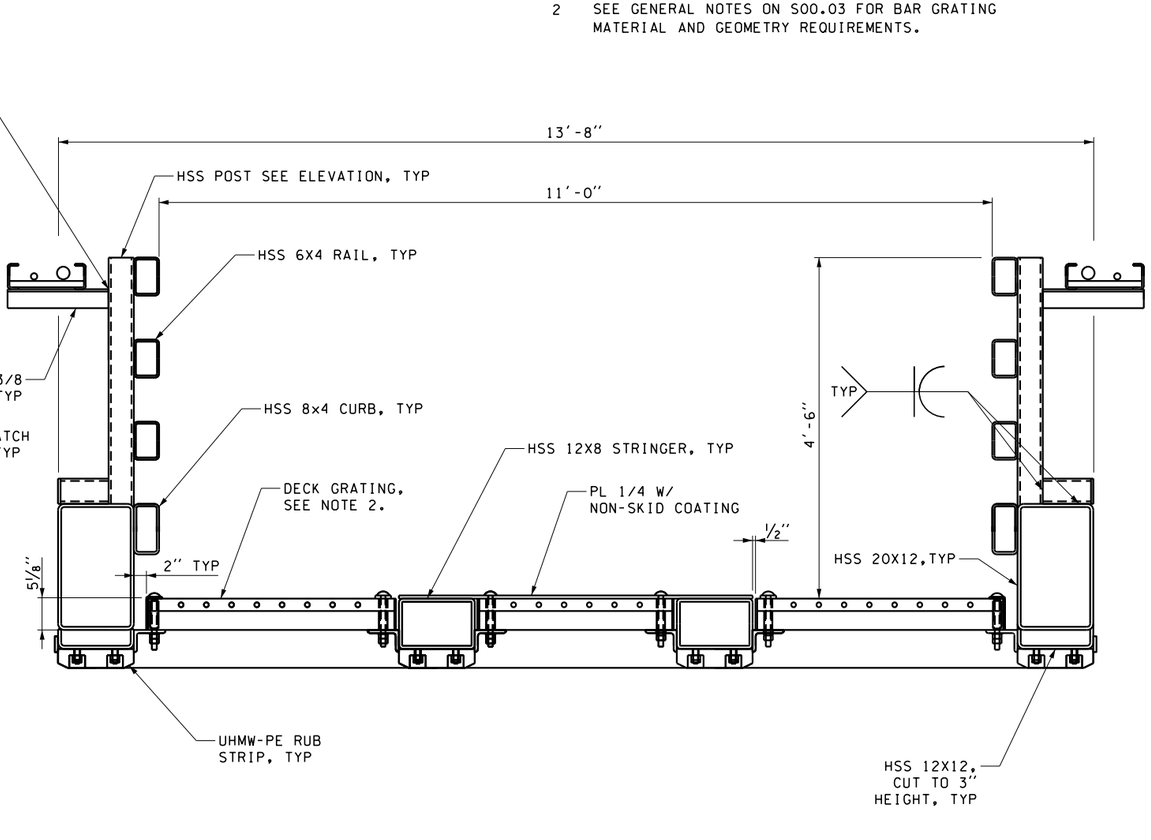
NOTES

1. PLACE DECK GRATING BOLTS AT TRANSVERSE SPACING SHOWN. PLACE BOLTS LONGITUDINALLY AT 1'-6" MAX SPACING. FOR EACH GRATING PANEL PROVIDE A MINIMUM OF THREE BOLTS AT EACH SUPPORT ANGLE.

2 SEE GENERAL NOTES ON S00.03 FOR BAR GRATING MATERIAL AND GEOMETRY REQUIREMENTS.



A S09.00 SECTION - TRANSFER SPAN TYPICAL



B S09.00 SECTION - TRANSFER SPAN OFFSHORE END

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CHECKED BY: M. WRAY	1/18/2022					CONTRACT NO. 00****
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DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KILBORN — STATE OF WASHINGTON — 30260 — REGISTERED PROFESSIONAL ENGINEER

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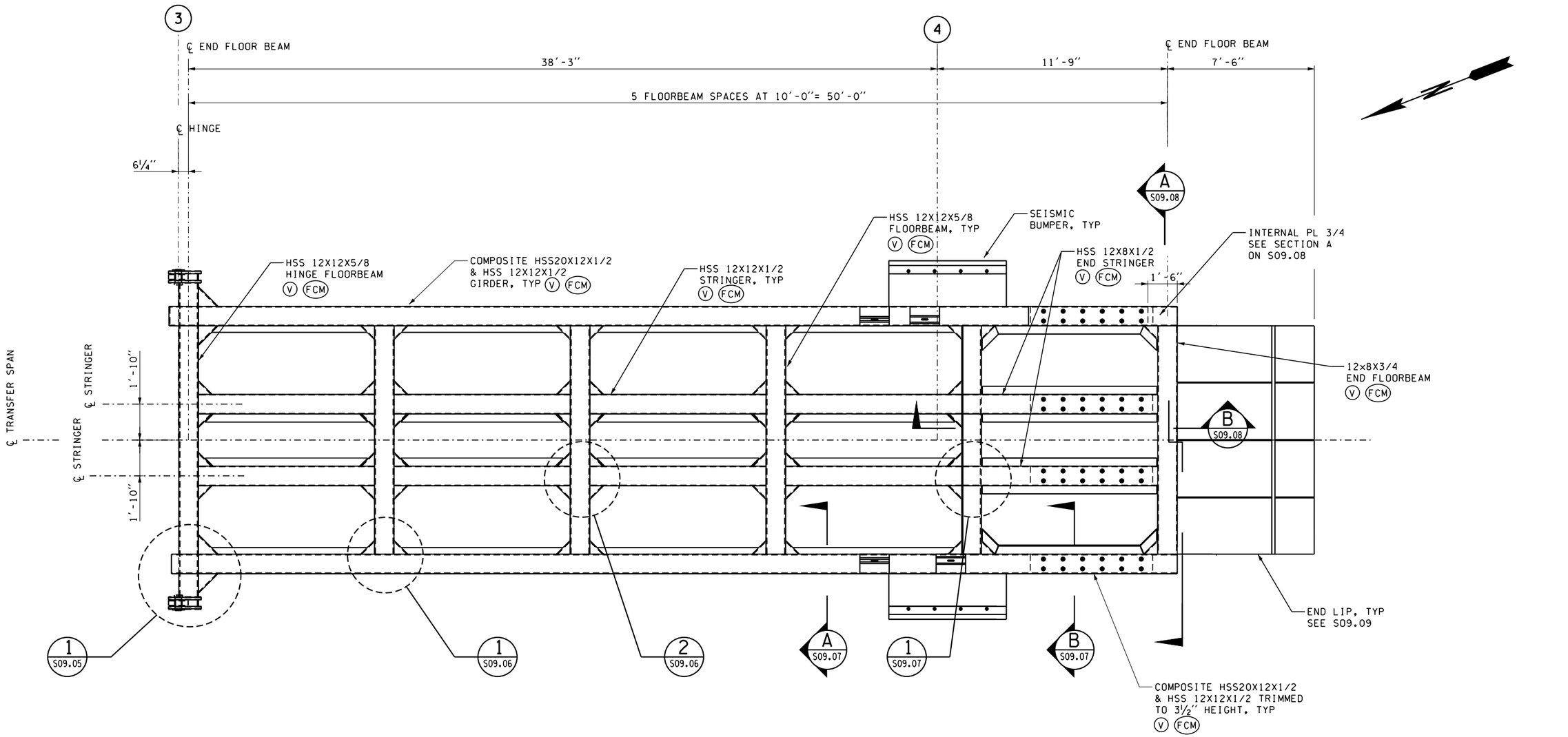
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

TRANSFER SPAN SECTIONS

S09.03

SHEET 63 OF 124 SHEETS



PLAN - TRANSFER SPAN FRAMING

NOTE: DECK GRATING AND RAILING DETAILS NOT SHOWN.

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ENTERED BY: M. ENOS	1/18/2022				JOB NUMBER 17W062	
CHECKED BY: M. WRAY	1/18/2022				CONTRACT NO. 00****	
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL RYBURN — STATE OF WASHINGTON — 30260 — PROFESSIONAL ENGINEER

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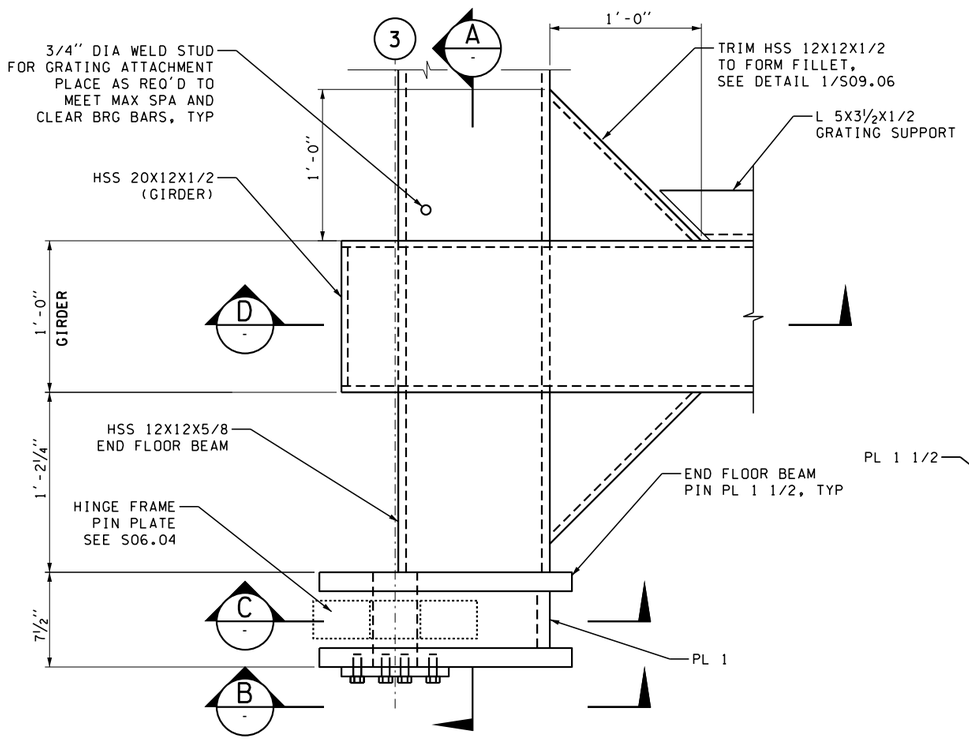
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

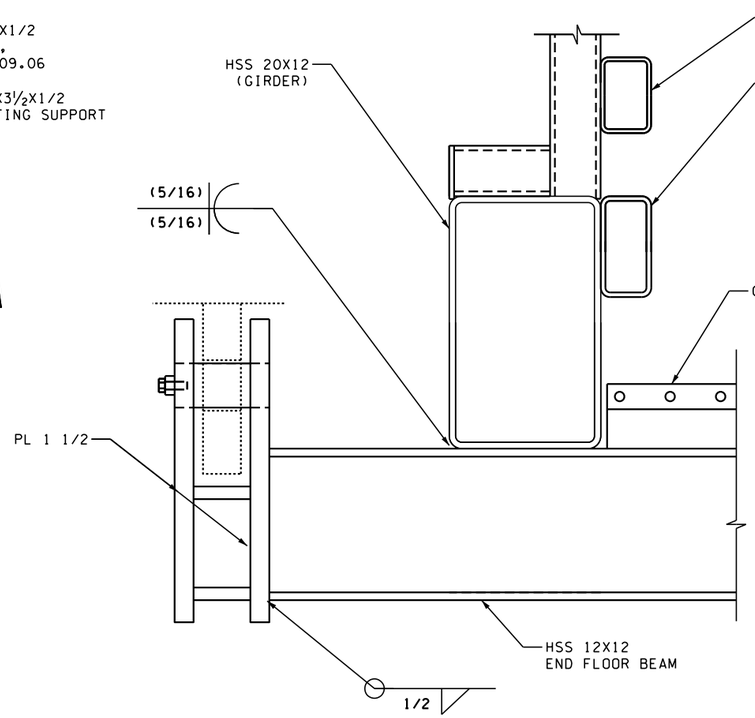
TRANSFER SPAN FRAMING PLAN

S09.04

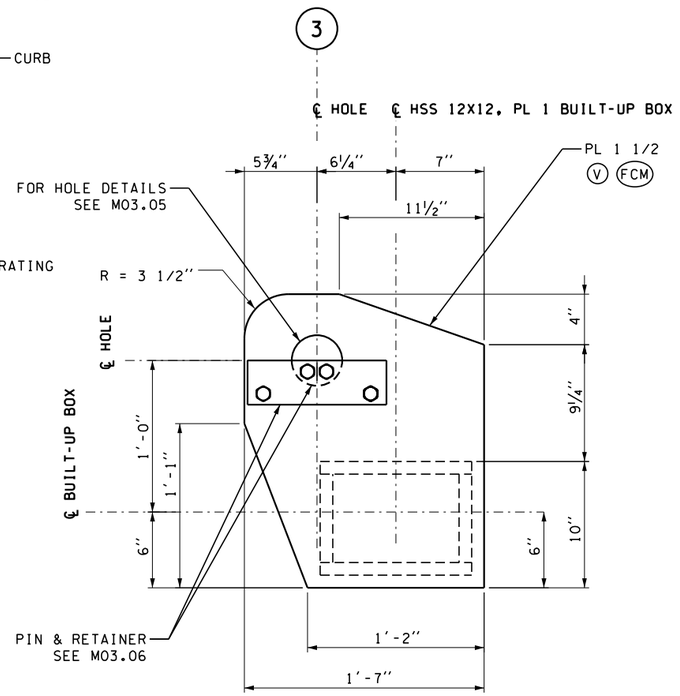
SHEET 64 OF 124 SHEETS



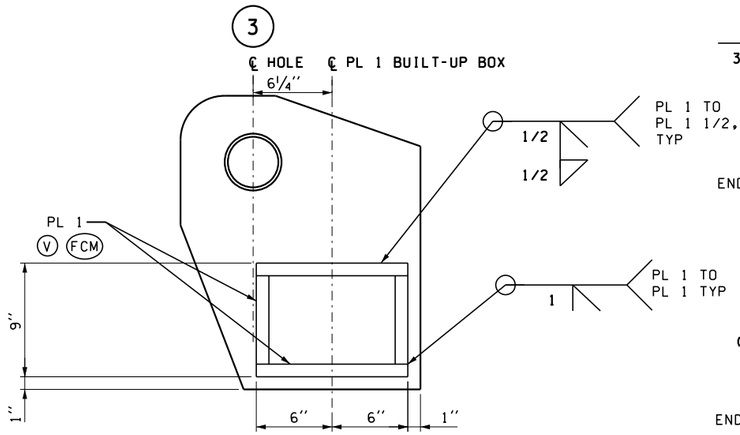
1 S09.04 DETAIL - END FLOOR BEAM



A - SECTION - END FLOOR BEAM

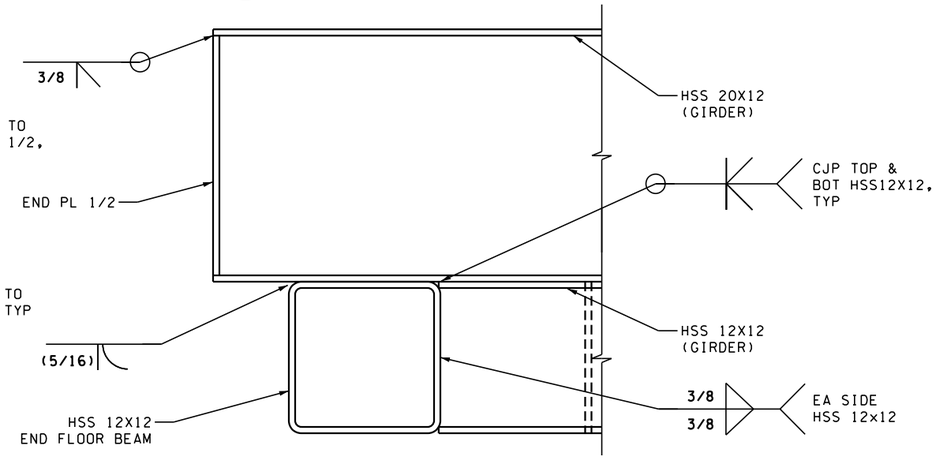


B - VIEW



C - SECTION

NOTE: FOR INFO NOT SHOWN SEE VIEW B



D - SECTION

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SUBMITTAL DATE: 1/11/22	morin				*-WA-***	
DESIGNED BY: R. JENS	1/18/2022				REGION NO. 10	STATE WASH
ENTERED BY: M. ENOS	1/18/2022				JOB NUMBER 17W062	
CHECKED BY: M. WRAY	1/18/2022				CONTRACT NO. 00****	
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KITTLESON, STATE OF WASHINGTON, 30260, PROFESSIONAL ENGINEER

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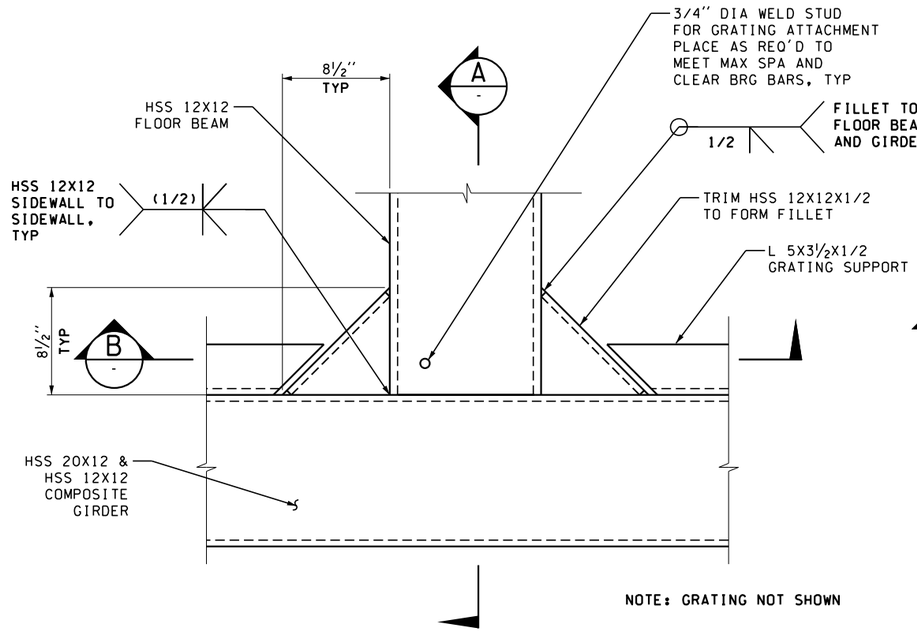
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

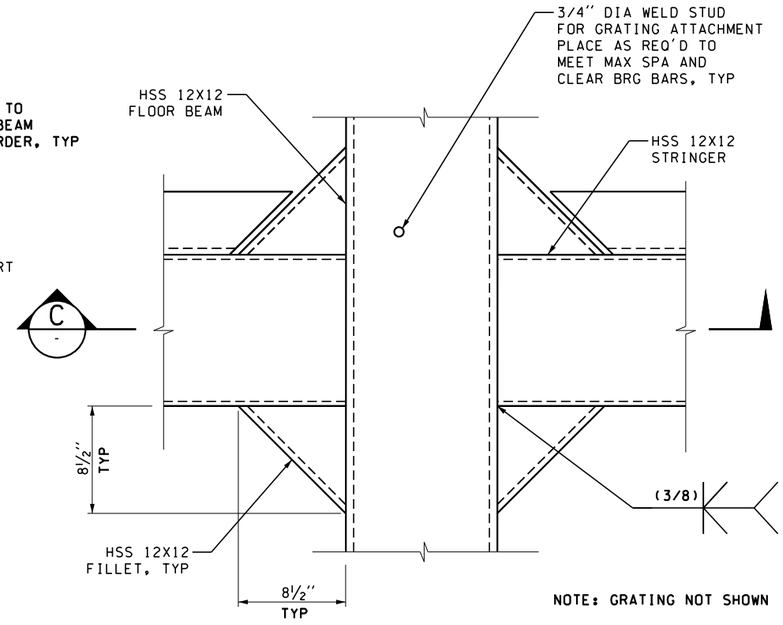
TRANSFER SPAN DETAILS I

S09.05

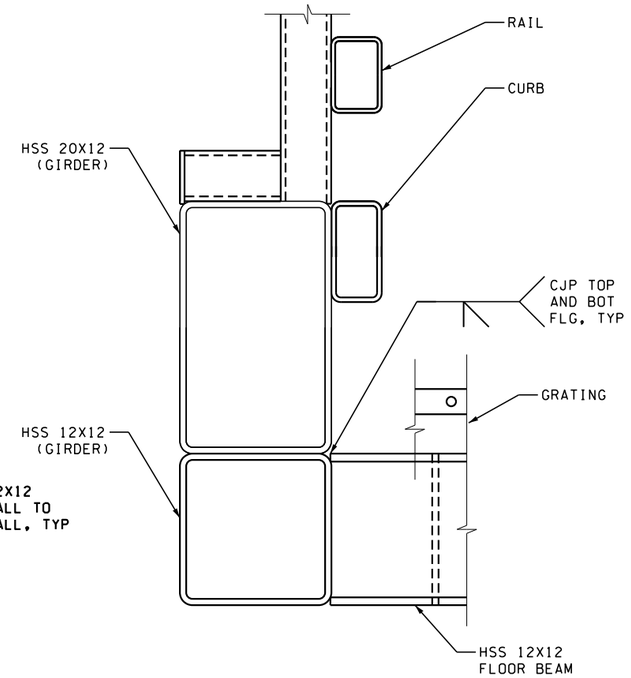
SHEET 65 OF 124 SHEETS



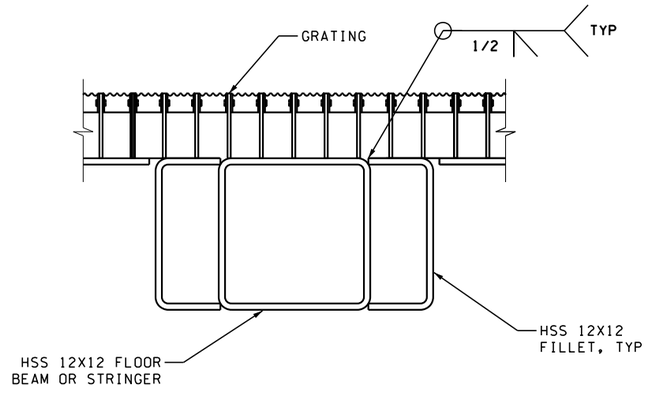
1 S09.04 TYPICAL FLOOR BEAM CONNECTION



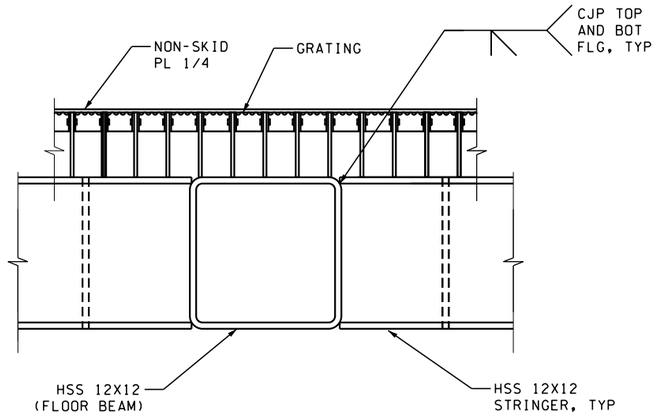
2 S09.04 TYPICAL STRINGER CONNECTION



A - SECTION



B - SECTION - FILLET



C - SECTION

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DESIGNED BY: R. BADER	1/18/2022					REGION NO. 10 / STATE WASH
ENTERED BY: J. KILBORN	1/18/2022					JOB NUMBER 17W062
CHECKED BY: M. WRAY	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KILBORN — STATE OF WASHINGTON — 30260 — PROFESSIONAL ENGINEER

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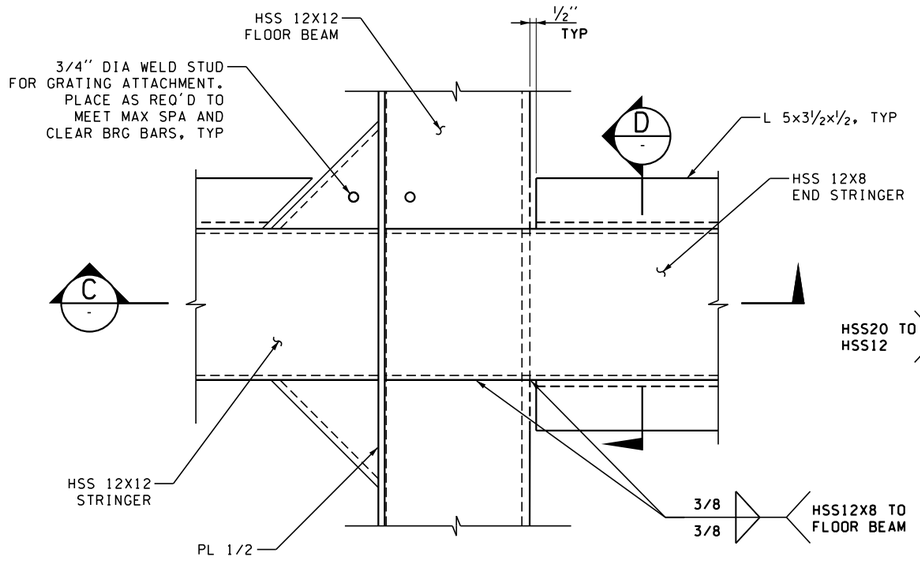
SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

TRANSFER SPAN DETAILS II

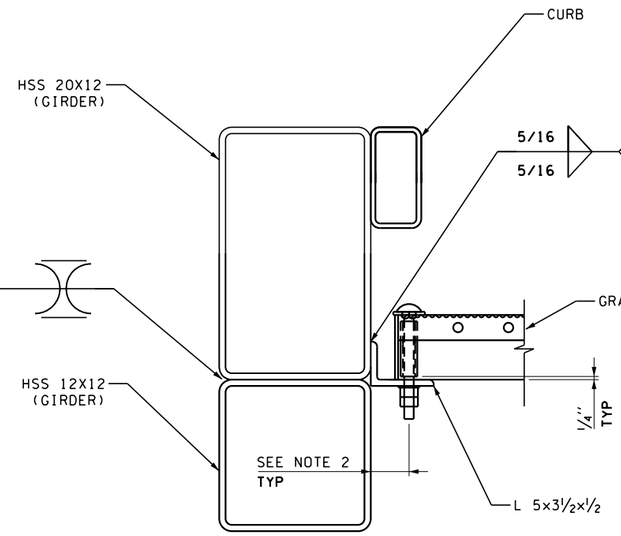
S09.06

SHEET 66 OF 124 SHEETS

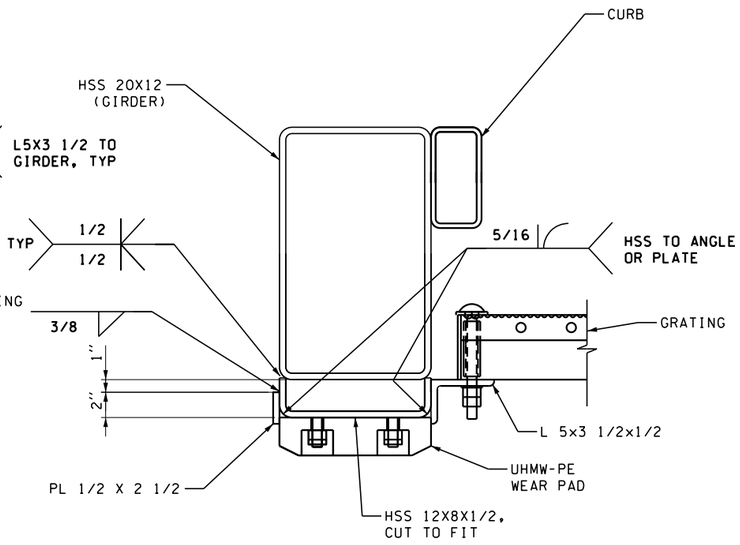


NOTE: GRATING NOT SHOWN

1 S09.04 DETAIL- STRINGER TRANSITION

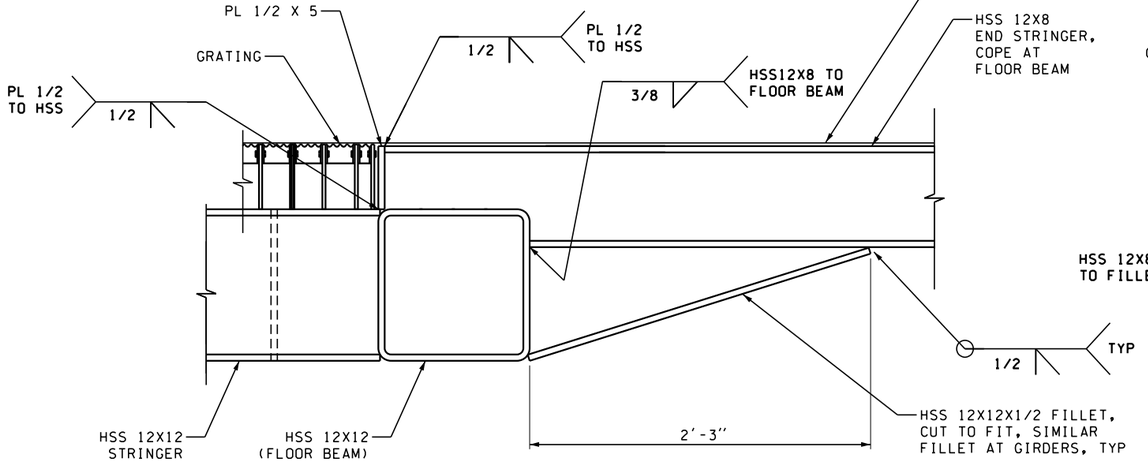


A s09.04 SECTION

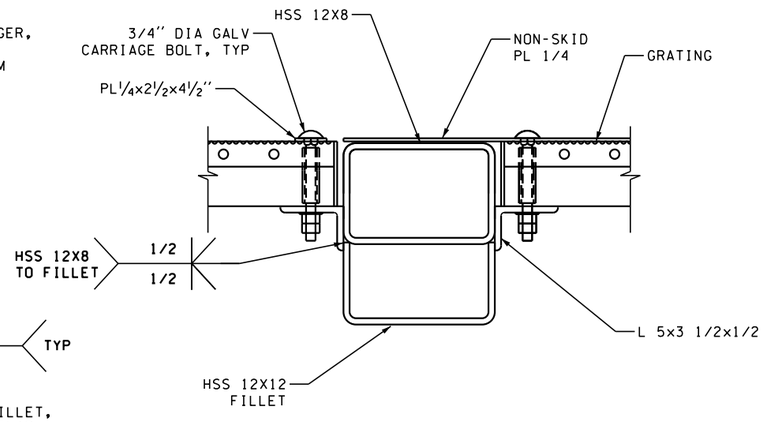


B s09.04 SECTION

NOTE: FOR INFO NOT SHOWN SEE SECTION A



C - SECTION



D - SECTION

NOTES

1. FOR GRATING BOLT INFO NOT SHOWN SEE DETAIL 4 ON S05.05
2. EXACT POSITION OF GRATING BOLTS SHALL BE DETERMINED BASED ON MAX SPACING, BRG BAR SPACING, EDGE BAND AND CROSS BAR GEOMETRY OF SELECTED BAR GRATING.

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SUBMITTAL DATE: 1/11/22						*-WA-***
DESIGNED BY: R. JENS	1/18/2022					REGION NO. 10 / STATE WASH
ENTERED BY: M. ENOS	1/18/2022					
CHECKED BY: M. WRAY	1/18/2022					JOB NUMBER 17W062
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						CONTRACT NO. 00****
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KILDALL, STATE OF WASHINGTON, 30260, PROFESSIONAL ENGINEER

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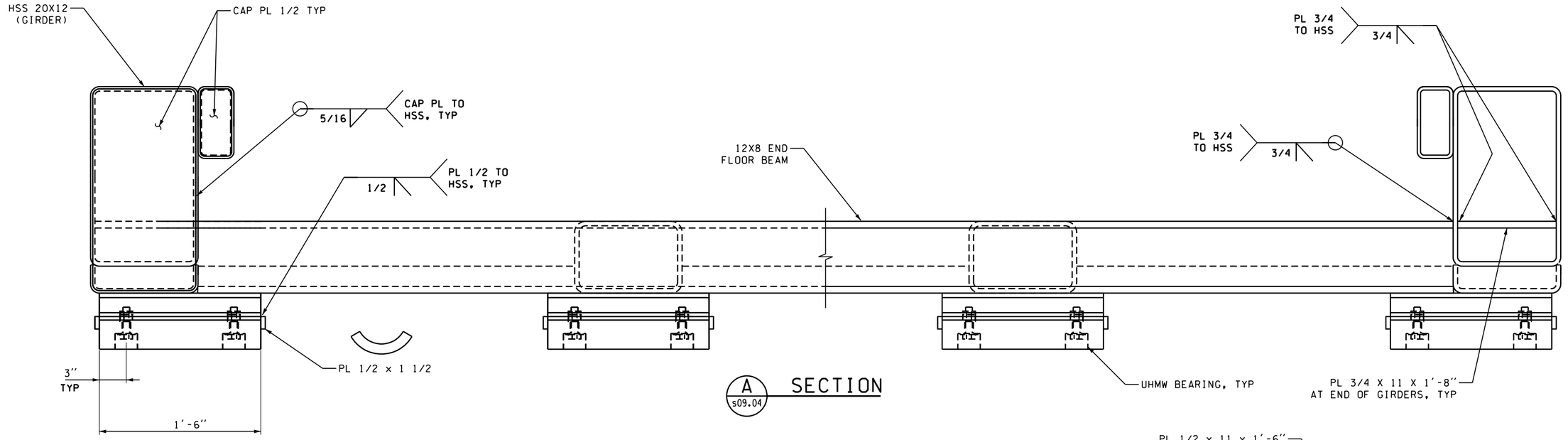
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

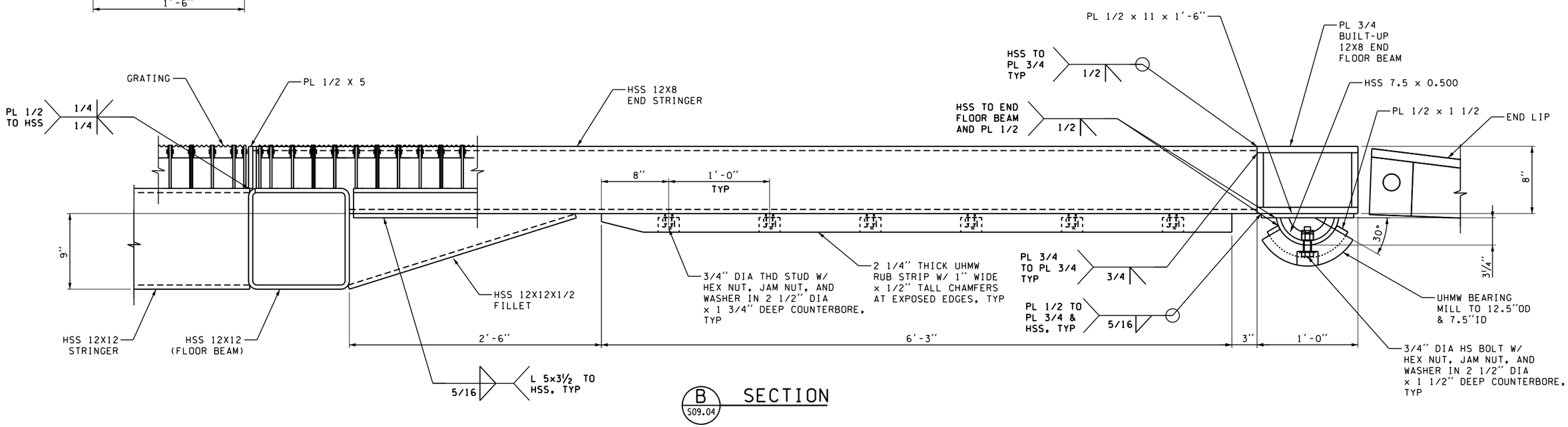
TRANSFER SPAN DETAILS III

S09.07

SHEET 67 OF 124 SHEETS



A s09.04 SECTION



B S09.04 SECTION

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DESIGNED BY: R. JENS	1/18/2022					JOB NUMBER 17W062
ENTERED BY: M. ENOS	1/18/2022					CONTRACT NO. 00****
CHECKED BY: M. WRAY	1/18/2022					
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

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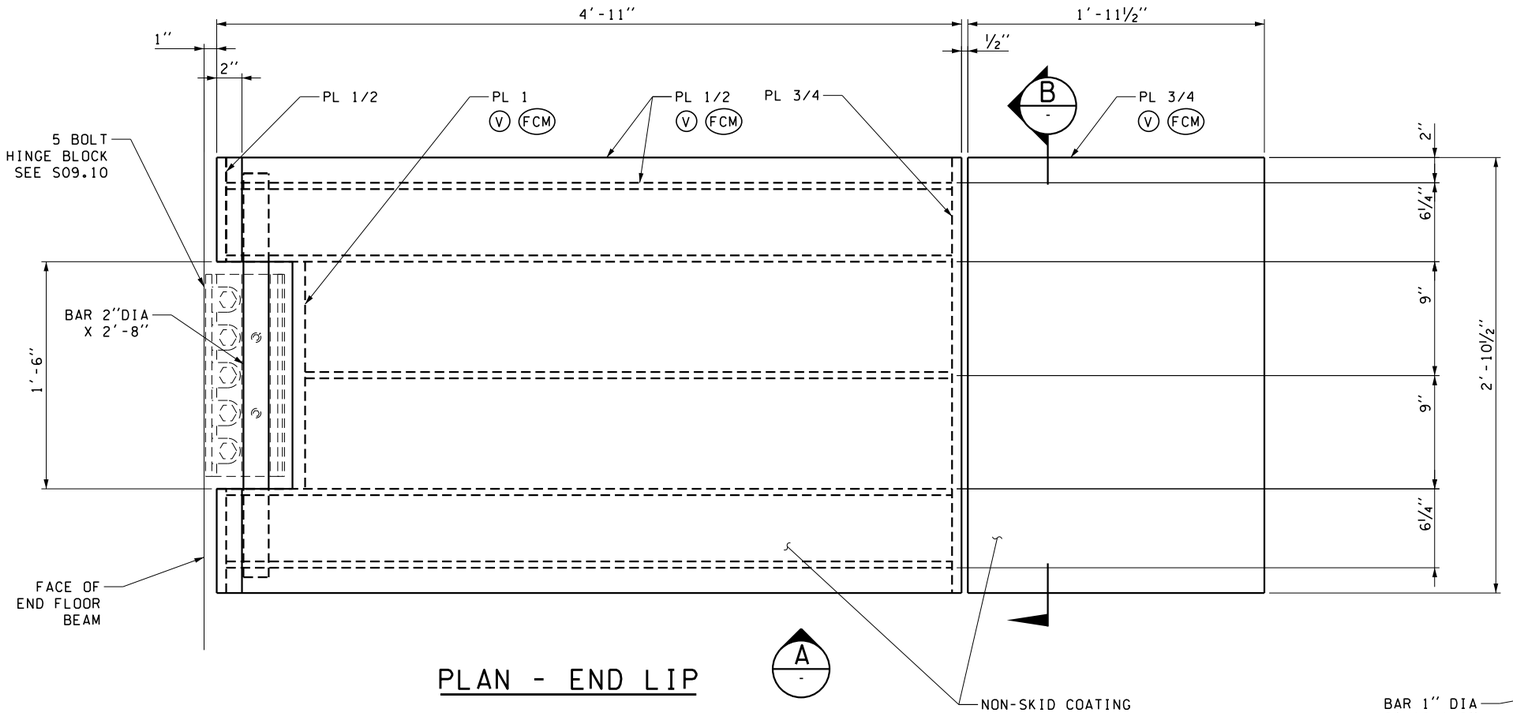
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY SLIP F DRIVE ON TIE-UP SLIP

TRANSFER SPAN DETAILS IV

S09.08

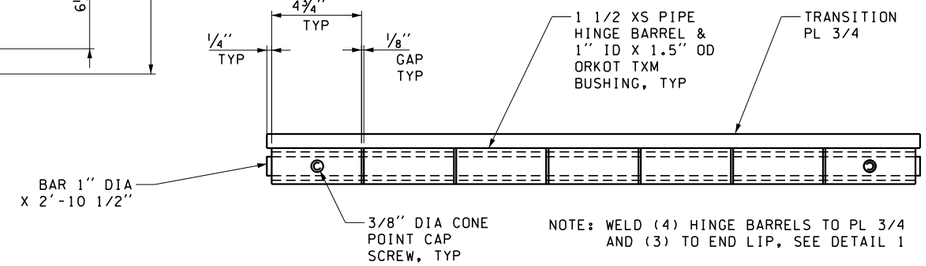
SHEET 68 OF 124 SHEETS



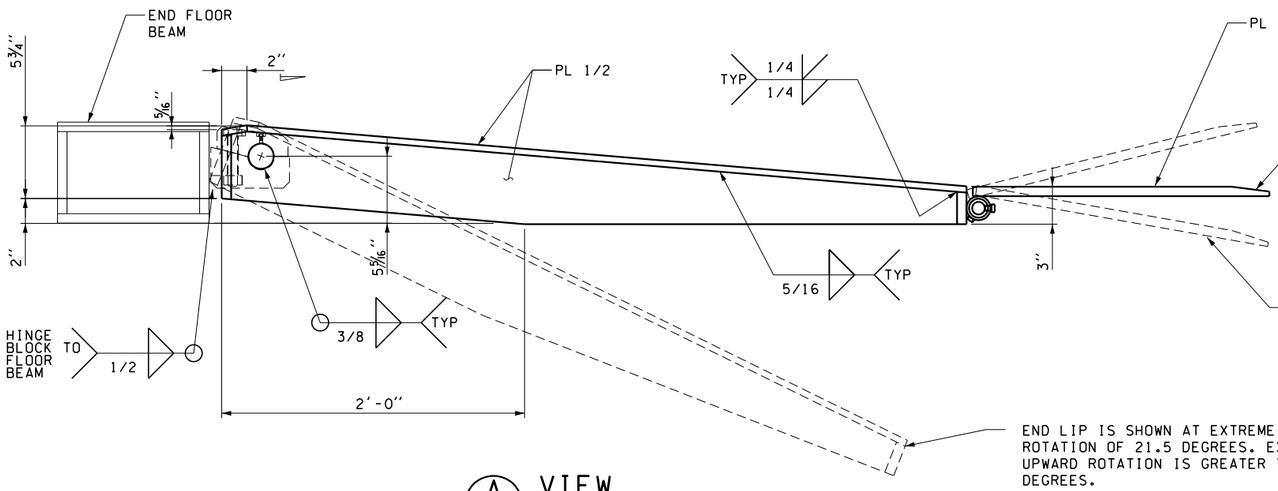
PLAN - END LIP

NOTES

1. 1" & 2" DIAMETER BARS SHALL BE ASTM A276 TYPE 316 CONDITION S, STAINLESS STEEL.
2. WELDING OF STAINLESS STEEL SHALL CONFORM TO AWS D1.6 - STRUCTURAL WELDING CODE-STAINLESS STEEL. ALL OTHER WELDING SHALL CONFORM TO AWS D1.5 BRIDGE WELDING CODE. SEE SPECIAL PROVISIONS FOR OTHER REQUIREMENTS.

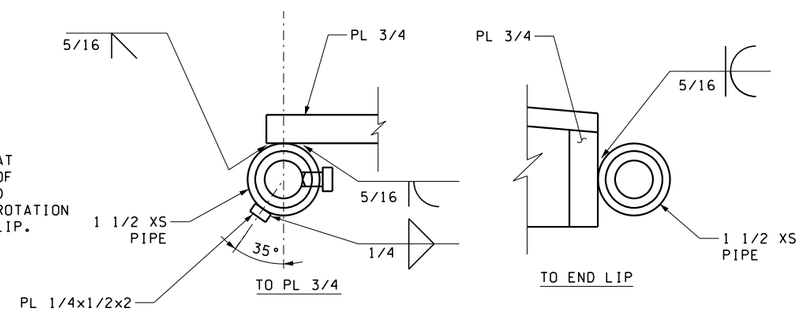


NOTE: WELD (4) HINGE BARRELS TO PL 3/4 AND (3) TO END LIP, SEE DETAIL 1



A VIEW

B SECTION



1 DETAIL

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SUBMITTAL DATE: 1/11/22						*-WA-***
DESIGNED BY: J. KILBORN	1/18/2022					REGION NO. 10 / STATE WASH
ENTERED BY: M. ENOS	1/18/2022					JOB NUMBER 17W062
CHECKED BY: M. WRAY	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KILBORN — STATE OF WASHINGTON — 31260 — PROFESSIONAL ENGINEER

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Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

TRANSFER SPAN END LIP

S09.09

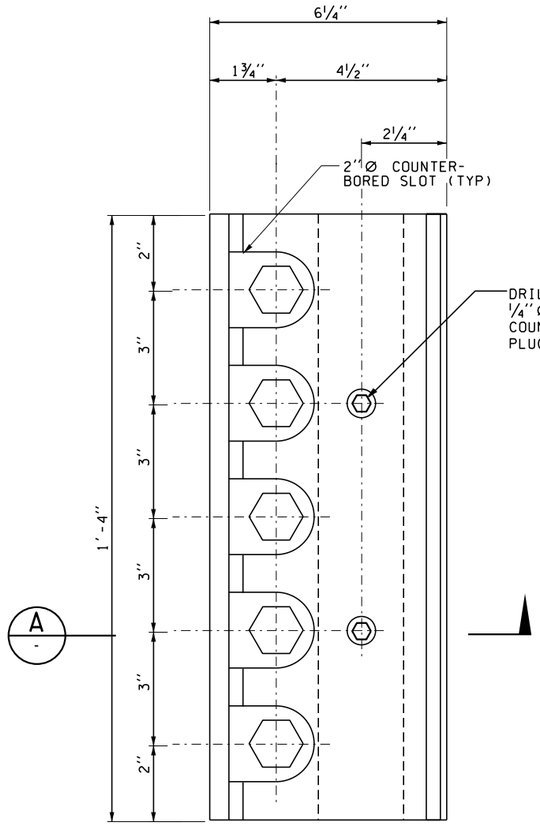
SHEET 69 OF 124 SHEETS

MATERIALS NOTES:

1. PLATES: ASTM A709 GRADE 50
2. STRUCTURAL STEEL BOLTS: ASTM A490
3. GREASE FITTING PLUG: STAINLESS STEEL

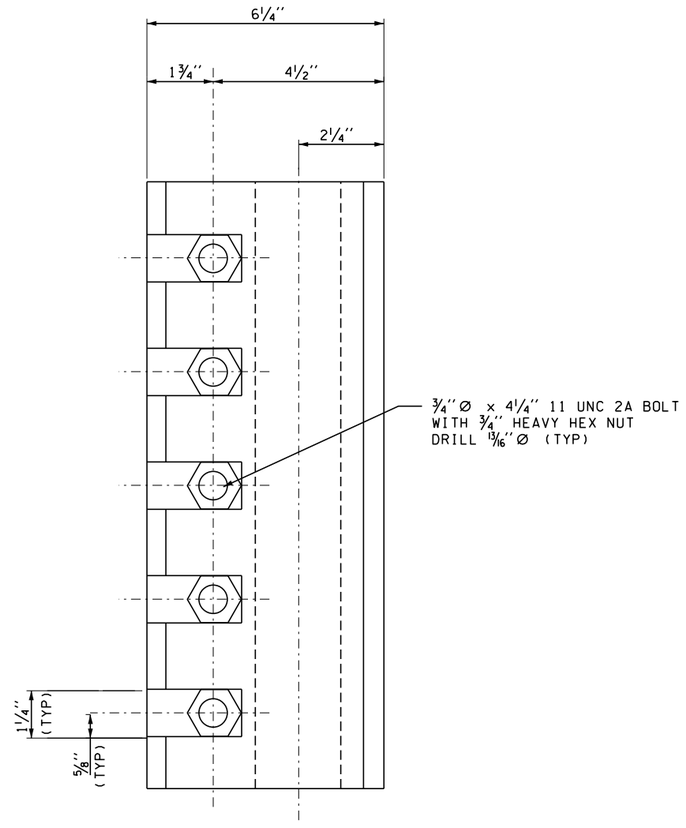
CONSTRUCTION NOTES:

1. ¾"Ø BOLTS SHALL BE INSTALLED SNUG TIGHT.
2. GREASE HEAVILY.

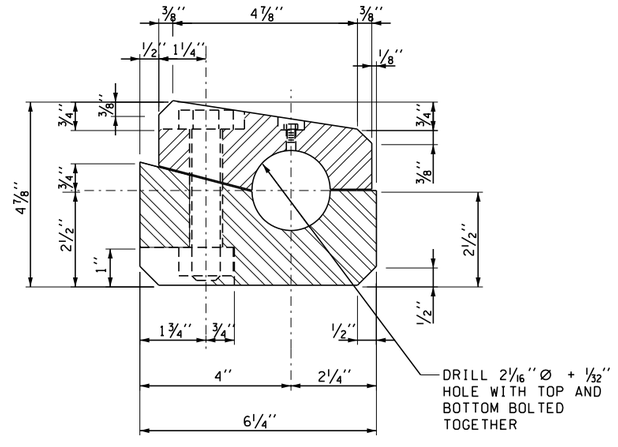


TOP PLAN

NOTE: FOR BOTTOM PLAN, SEE 2 -



BOTTOM PLAN



1 / S09.09 DETAIL

2 / - DETAIL

A / - SECTION

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ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062	
CHECKED BY: M. WRAY	1/18/2022					CONTRACT NO.	
MAR PROJ ENGR: T. CASTOR	1/18/2022					OO****	
DGN ENGR MNGR:							
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY			

JEFFREY PAUL KILBORN — STATE OF WASHINGTON — 20260 — PROFESSIONAL ENGINEER

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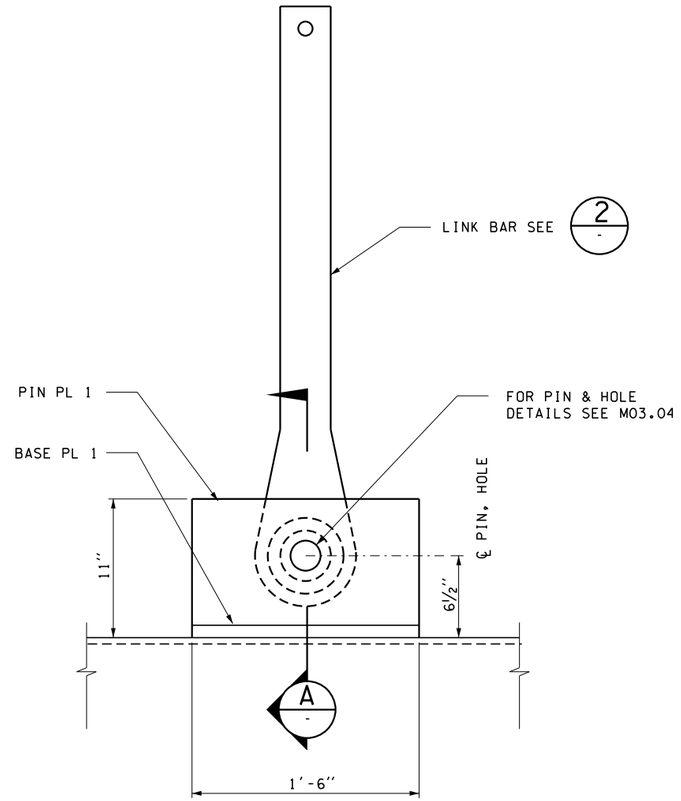
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

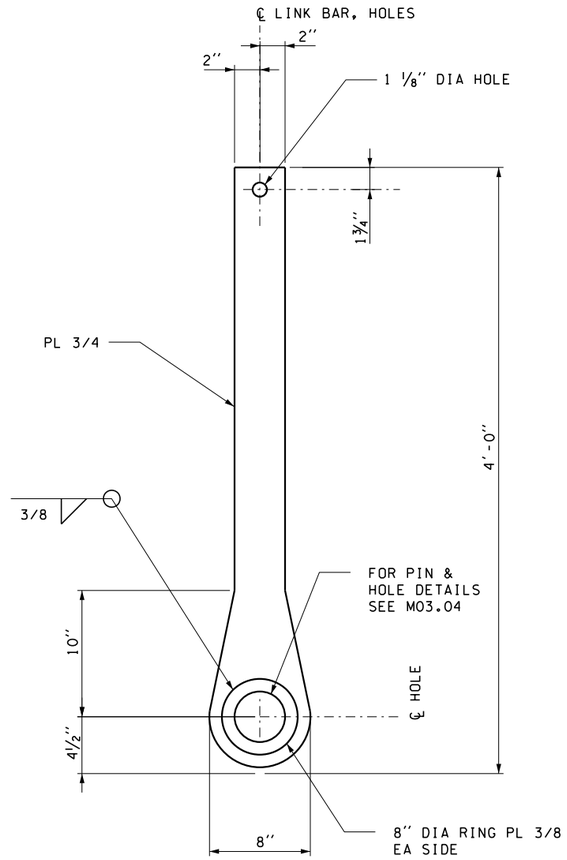
END LIP 5 BOLT HINGE BLOCK

S09.10

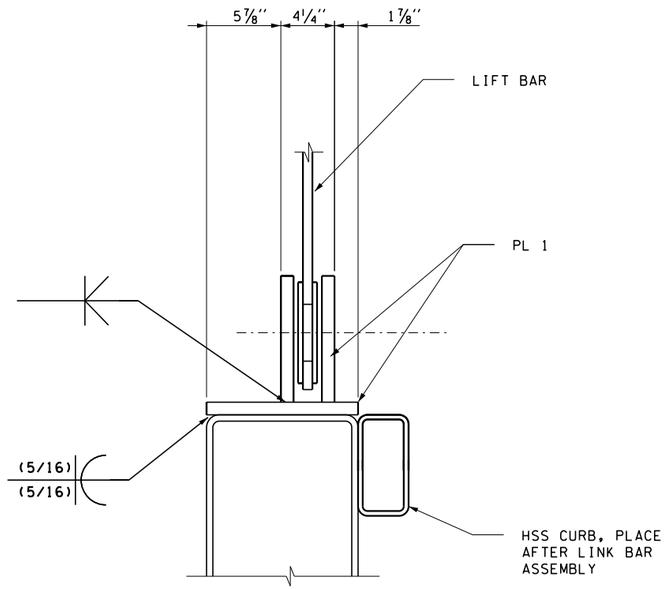
SHEET 70 OF 124 SHEETS



1/S09.01 DETAIL- HOIST LINK BAR ASSEMBLY



2/- DETAIL- HOIST LINK BAR



A/- SECTION

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ENTERED BY: J. KILBORN	1/18/2022					JOB NUMBER 17W062
CHECKED BY: M. WRAY	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KILBORN — STATE OF WASHINGTON — 30260 — PROFESSIONAL ENGINEER

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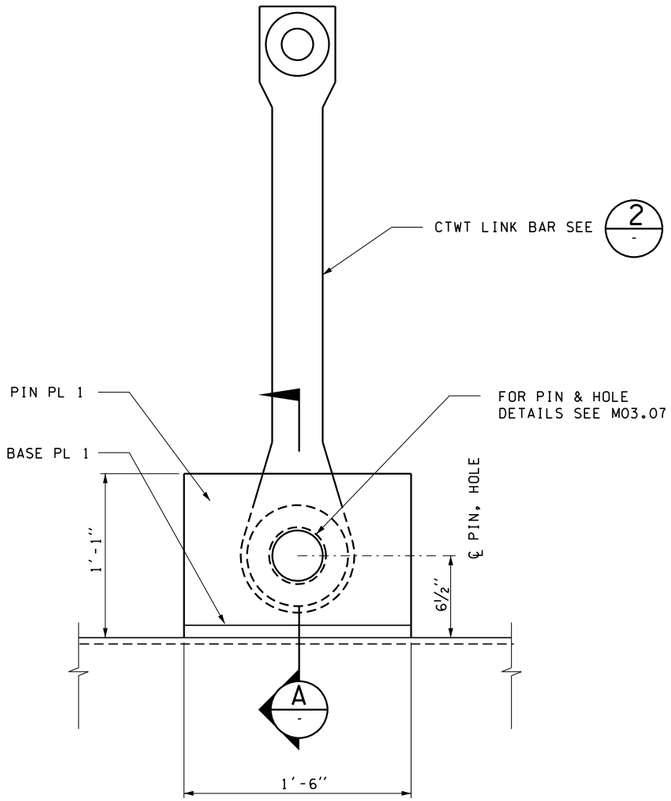
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

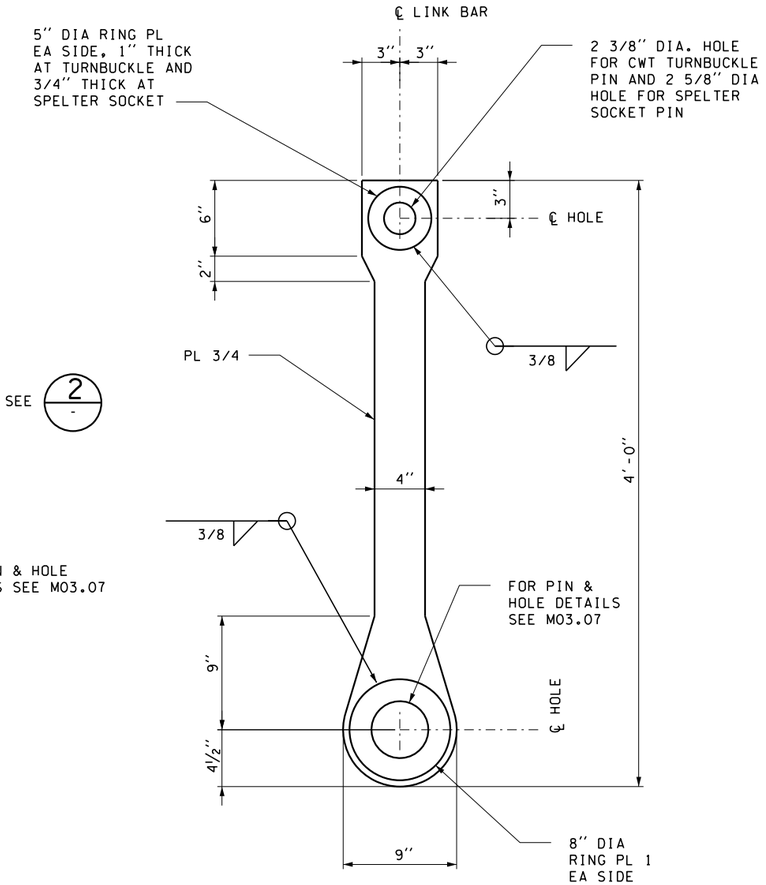
TRANSFER SPAN HOIST LINK BAR

S09.11

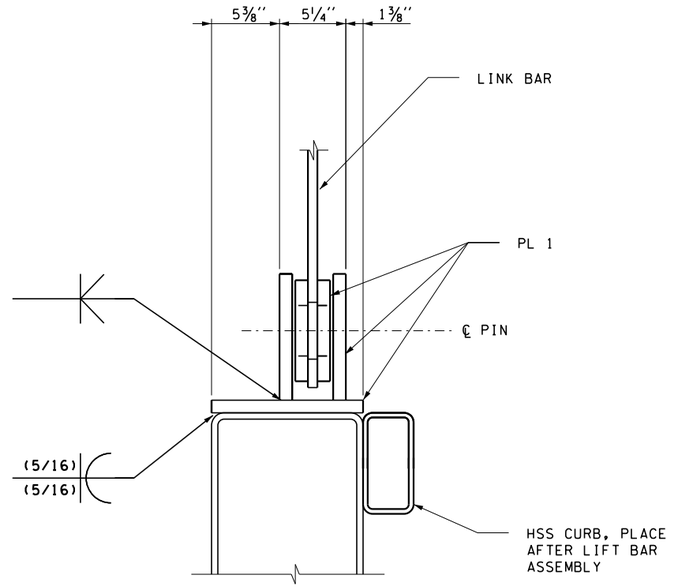
SHEET 71 OF 124 SHEETS



1 S09.01 DETAIL- CWT LINK BAR ASSEMBLY



2 DETAIL- CWT LINK BAR



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SUBMITTAL DATE: 1/11/22					*-WA-***	
DESIGNED BY: J. KILBORN	1/18/2022				REGION NO. 10	STATE WASH
ENTERED BY: J. KILBORN	1/18/2022				JOB NUMBER 17W062	
CHECKED BY: M. WRAY	1/18/2022				CONTRACT NO. 00****	
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KILBORN — STATE OF WASHINGTON — 30260 — PROFESSIONAL ENGINEER — STRUCTURAL ENGINEER

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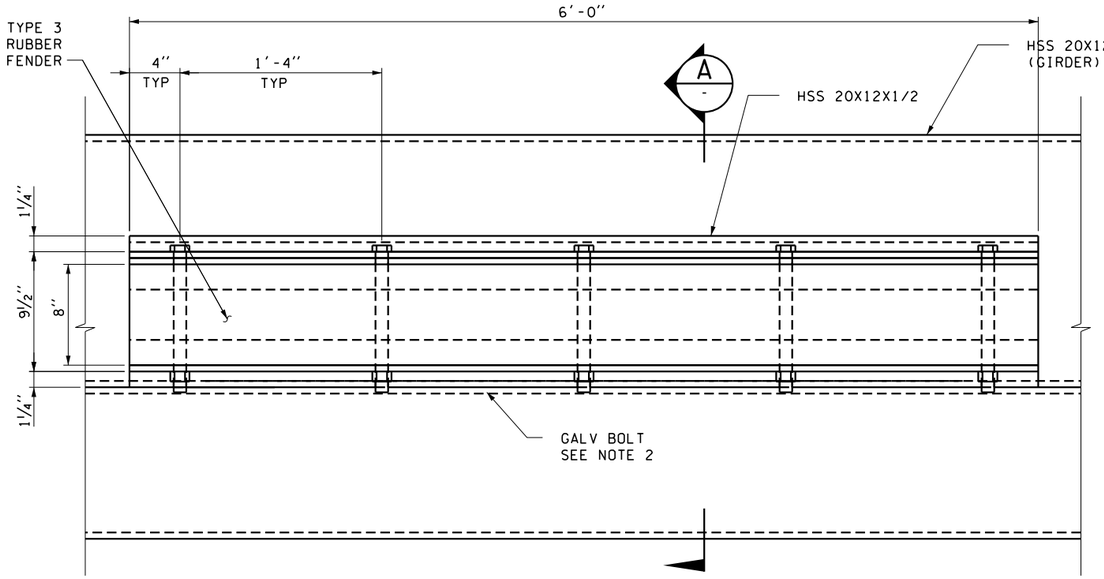
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

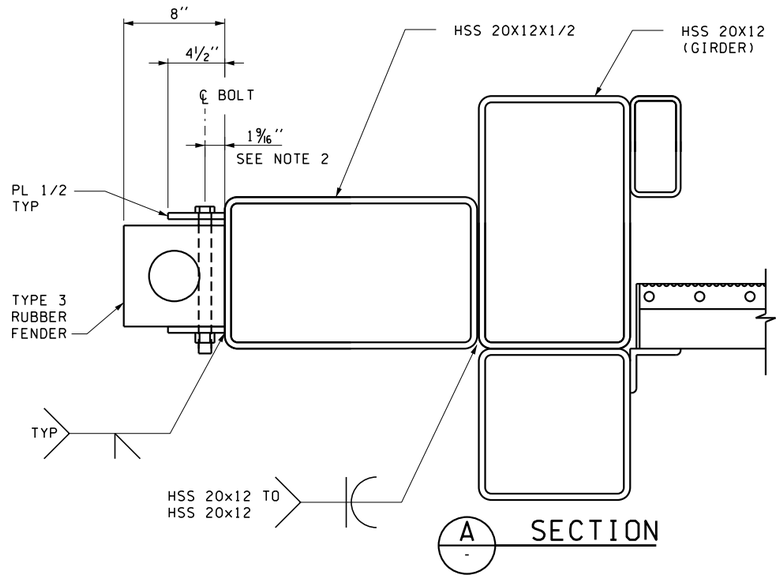
TRANSFER SPAN CWT LINK BAR

S09.12

SHEET 72 OF 124 SHEETS



1 S09.00 DETAIL- SEISMIC BUMPER



NOTES

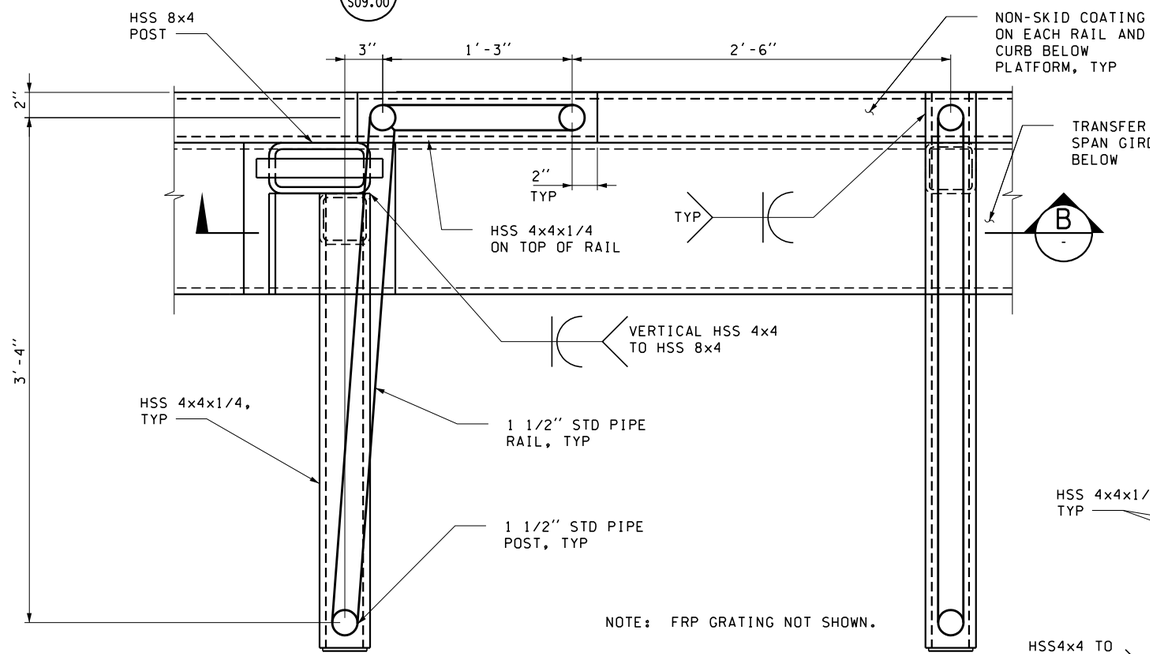
1. TYPE 3 FENDER IS AN 8" X 8" EXTRUDED RUBBER FENDER WITH CIRCULAR HOLLOW CAVITY OF 3" TO 4" AND APPROXIMATE BOLT PATTERN SHOWN. REQUIRED RATED PERFORMANCE OF THE FENDER IS:

   RATED REACTION: 345 kN/m OR 23.6 KIPS/FT

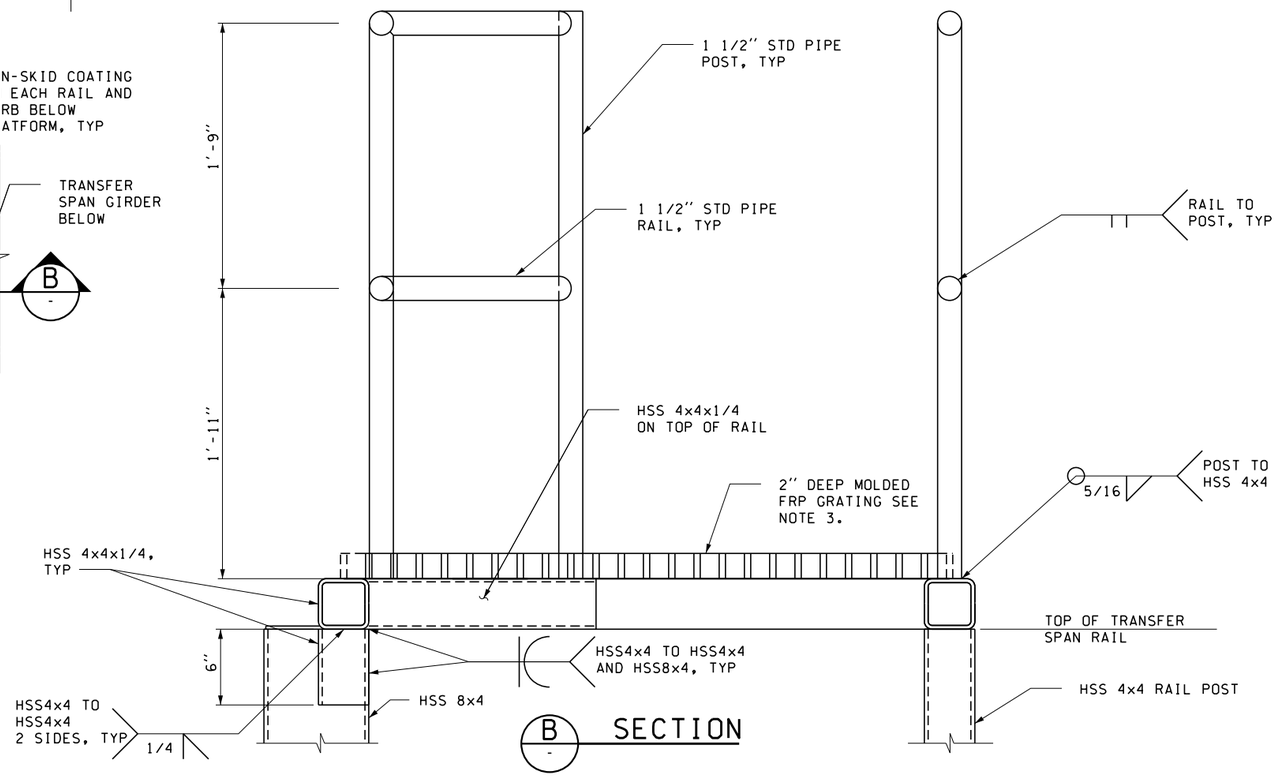
   RATED ENERGY: 11.3 kN/m OR 2.55 FT*KIPS/FT

2. BOLT DIAMETER IS 1" AND OFFSET FROM BASE OF FENDER IS APPROXIMATELY 1 9/16" (40mm) AS SHOWN. VERIFY THESE DIMENSIONS WITH SPECIFIC FENDER MANUFACTURER.

3. PLATFORM GRATING SHALL BE 2" DEEP MOLDED FRP GRATING W/ 1/4" WIDE BEARING BARS AT 2" SPA EACH WAY. GRATING SHALL HAVE 72% OPEN AREA. SEE GENERAL NOTES FOR ATTACHMENT REQUIREMENTS. TRIM GRATING AT POSTS.



2 S09.00 DETAIL- LADDER PLATFORM



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SUBMITTAL DATE: 1/11/22	morin					
DESIGNED BY: J. KILBORN	1/18/2022					*-WA-***
ENTERED BY: J. KILBORN	1/18/2022					REGION NO. STATE
CHECKED BY: M. WRAY	1/18/2022					10 WASH
MAR PROJ ENGR: T. CASTOR	1/18/2022					JOB NUMBER 17W062
DGN ENGR MNGR:						CONTRACT NO. 00****
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KILBORN — STATE OF WASHINGTON — 30260 — PROFESSIONAL ENGINEER

SEE CT01.00

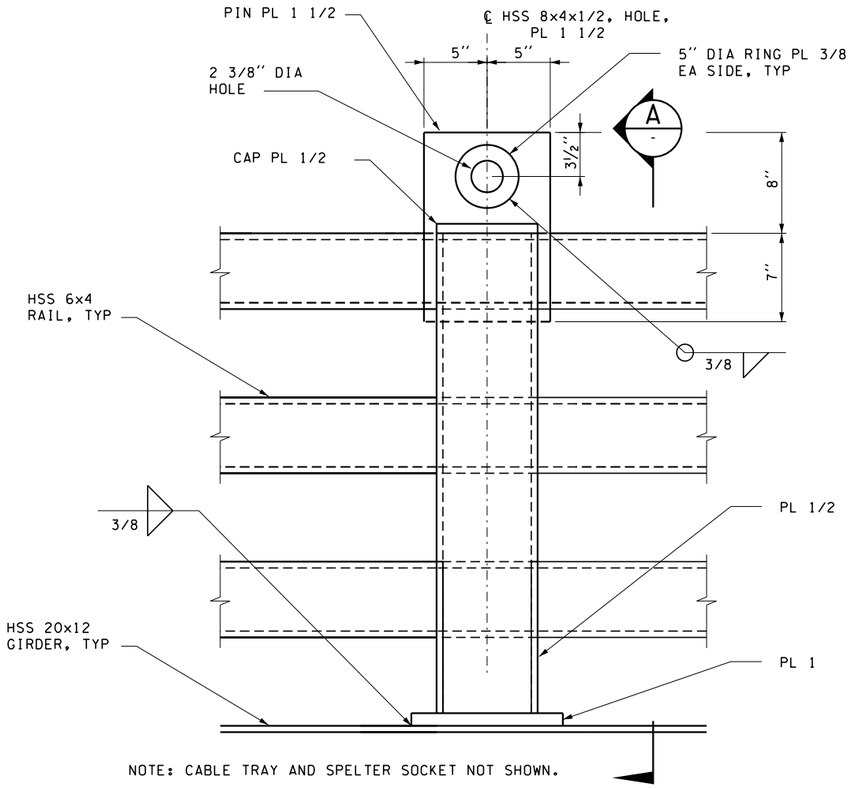
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

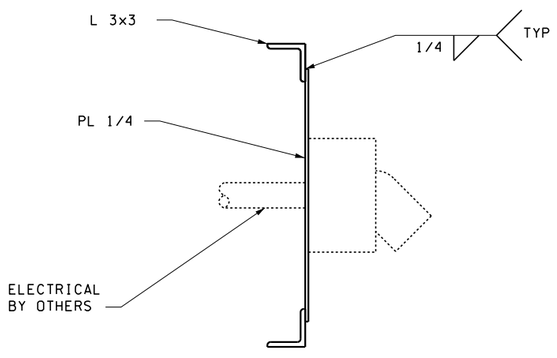
TRANSFER SPAN MISC DETAILS I

S09.13

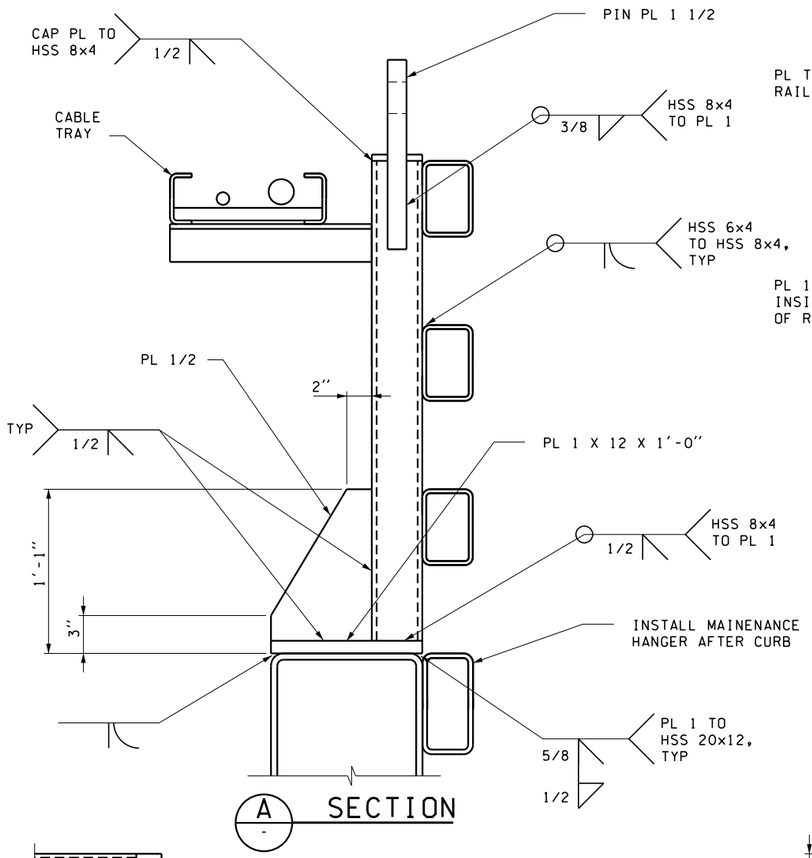
SHEET 73 OF 124 SHEETS



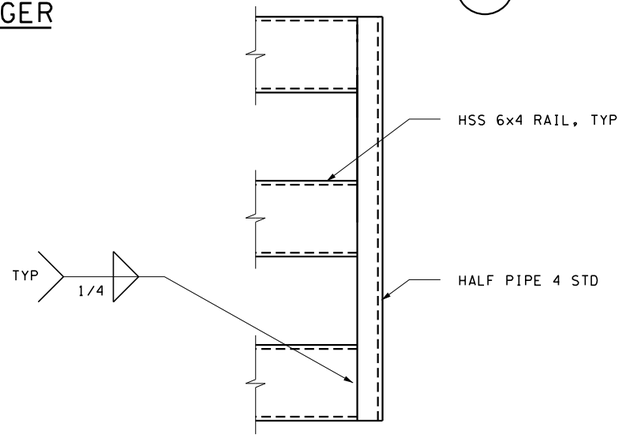
1 S09.01 DETAIL- MAINTENANCE HANGER



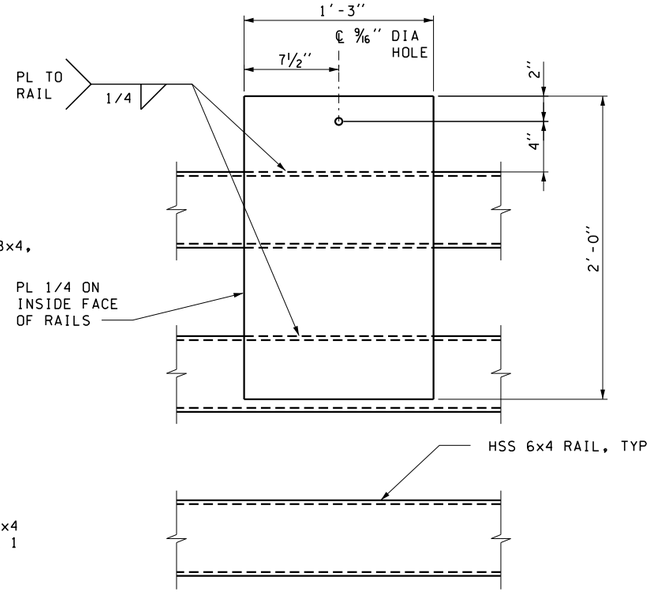
C - SECTION



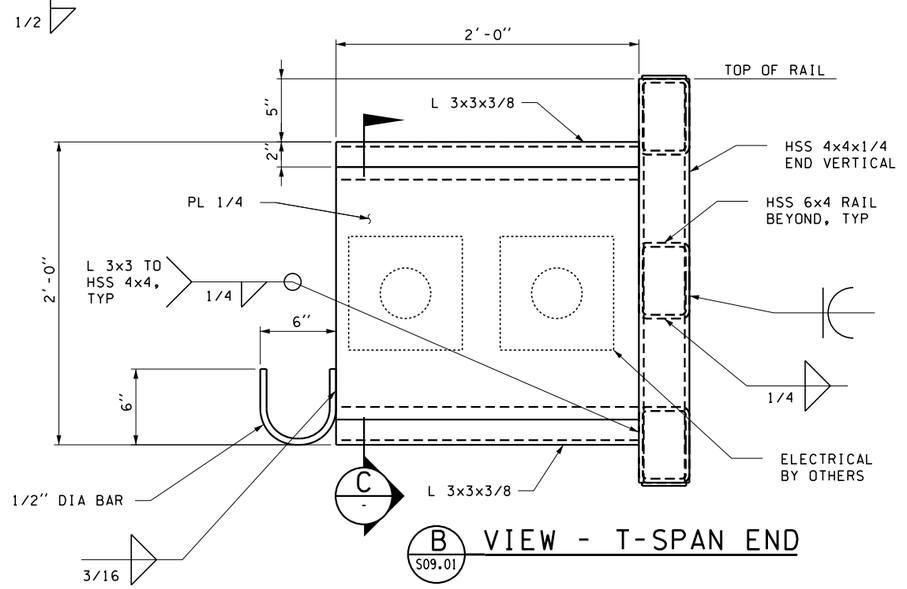
A - SECTION



S05.01 3 S09.01 DETAIL - RAIL END



2 S09.01 DETAIL- SLOPE INDICATOR



B S09.01 VIEW - T-SPAN END

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DESIGNED BY: J. KILBORN	1/18/2022					*-WA-***
ENTERED BY: J. KILBORN	1/18/2022					REGION NO. STATE
CHECKED BY: M. WRAY	1/18/2022					10 WASH
MAR PROJ ENGR: T. CASTOR	1/18/2022					JOB NUMBER 17W062
DGN ENGR MNGR:						CONTRACT NO. 00****
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KILBORN, STATE OF WASHINGTON, 30260, PROFESSIONAL ENGINEER

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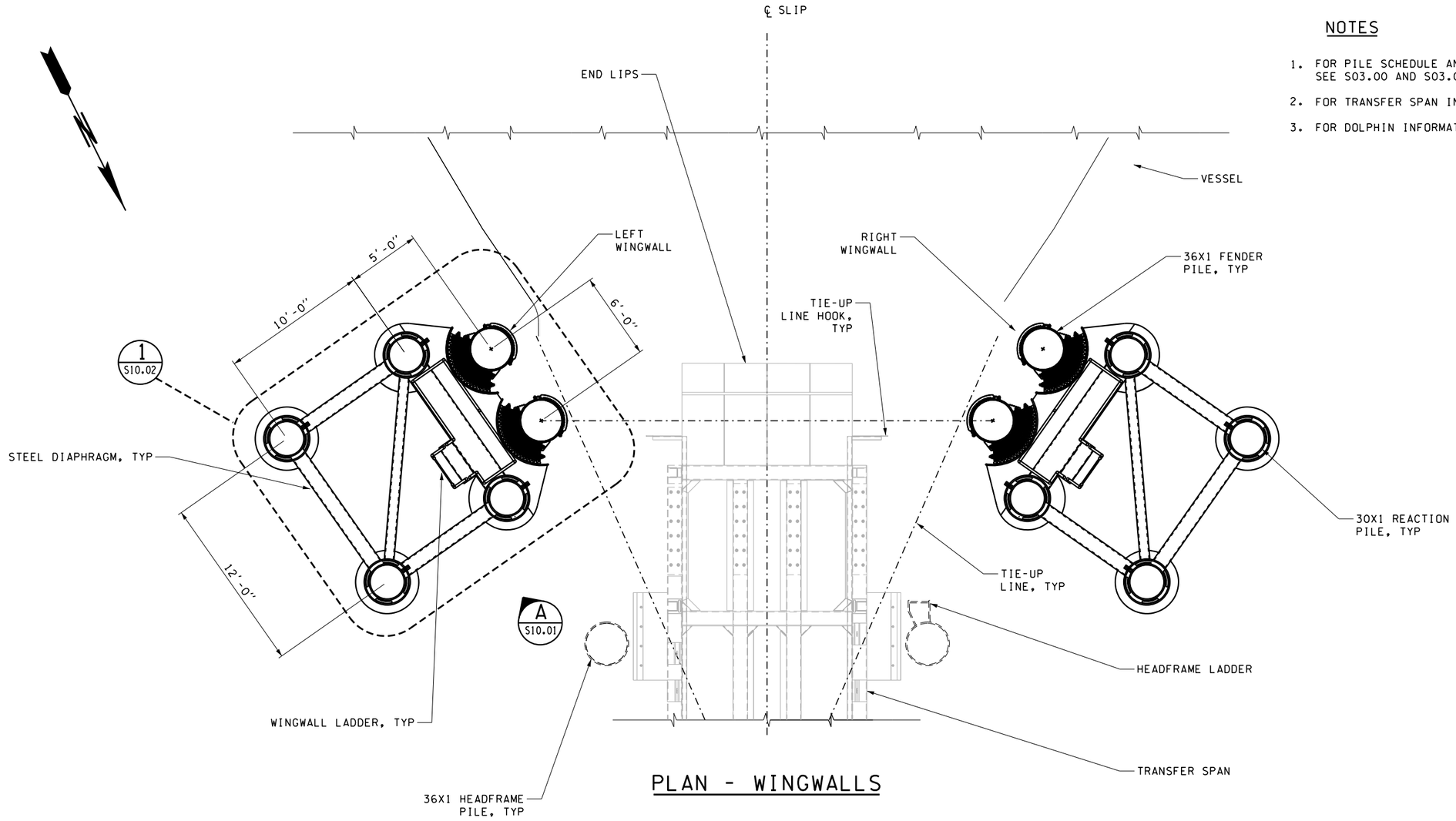
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

TRANSFER SPAN MISC DETAILS II

S09.14

SHEET 74 OF 124 SHEETS



PLAN - WINGWALLS

NOTES

1. FOR PILE SCHEDULE AND LAYOUT INFORMATION SEE S03.00 AND S03.01
2. FOR TRANSFER SPAN INFORMATION SEE S09 SHEETS.
3. FOR DOLPHIN INFORMATION SEE S11 SHEETS.

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SUBMITTAL DATE: 1/11/22	morin					*-WA-***
DESIGNED BY: S. WILLIAMS	1/18/2022					REGION NO. 10 / STATE WASH
ENTERED BY: M. ENOS	1/18/2022					JOB NUMBER 17W062
CHECKED BY: J. KILBORN	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KILBORN — STATE OF WASHINGTON — 30260 — PROFESSIONAL ENGINEER

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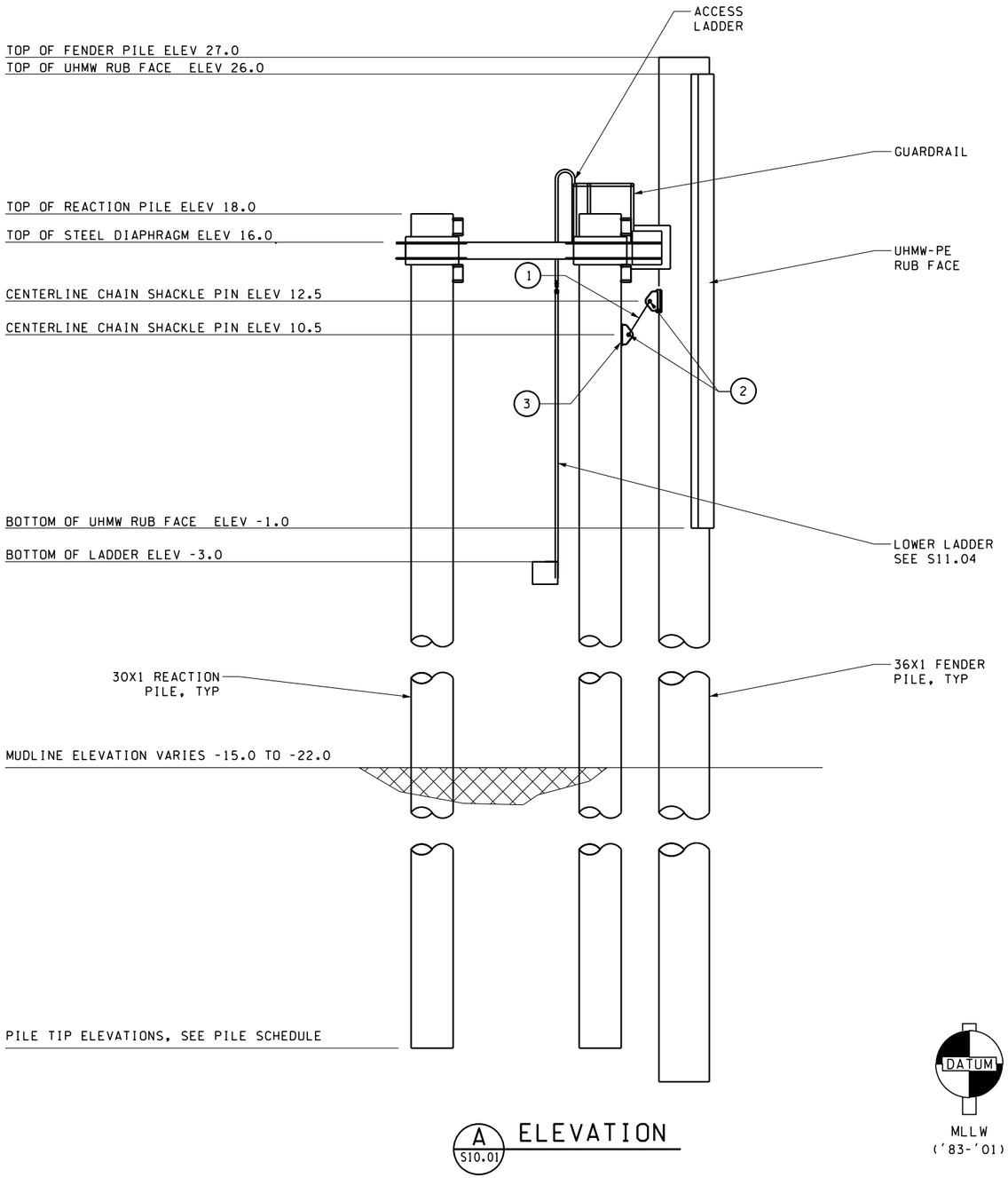
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

WINGWALL PLAN

S10.00

SHEET 75 OF 124 SHEETS



A S10.01 ELEVATION

DATUM

MLLW
('83-'01)

NOTES

1. LEFT WINGWALL SHOWN. RIGHT WINGWALL OPPOSITE HAND.
2. FOR CHAIN, SHACKLE, ROPE AND HARDWARE REQUIREMENTS SEE S00.05
3. FOR PILE INFORMATION SEE PILE LAYOUT AND SCHEDULE ON S03 SHEETS

LEGEND

(1) 1 1/2" STUD LINK CHAIN, GRADE 2

(2) 1 3/4" SAFETY BOLT TYPE CHAIN SHACKLE (CROSBY G-2150 OR EQUAL)

(3) WELDED STEEL PADEYE, SEE SHEET S11.06

FILE NAME: PW: WSF/Eagle Harbor/17w062SlipFtoDriveOn/PE/PE_PD/CAD/_Contract_Plans/100%\17w062s10_01.dlv						
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ENTERED BY: M. ENOS	1/18/2022				JOB NUMBER 17W062	
CHECKED BY: M. WRAY	1/18/2022				CONTRACT NO. 00****	
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JEFFREY PAUL KLIBORA — STATE OF WASHINGTON — 30260 — PROFESSIONAL ENGINEER

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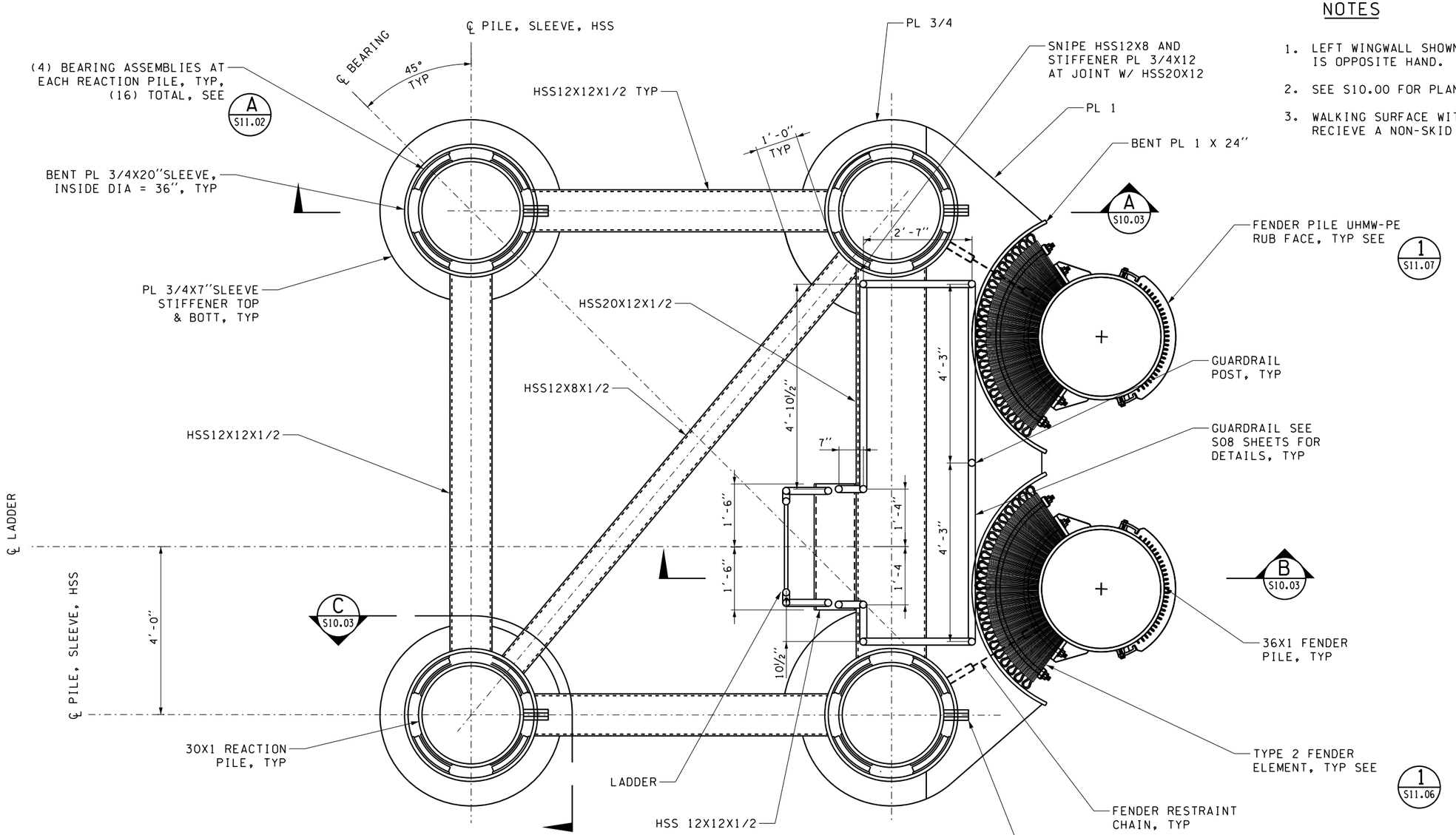
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

WINGWALL ELEVATION

S10.01

SHEET 76 OF 124 SHEETS



1 S10.00 DETAIL - DIAPHRAGM

NOTES

1. LEFT WINGWALL SHOWN. RIGHT WINGWALL IS OPPOSITE HAND.
2. SEE S10.00 FOR PLAN GEOMETRY NOT SHOWN.
3. WALKING SURFACE WITHIN GUARDRAIL SHALL RECIEVE A NON-SKID COATING.

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DESIGNED BY: J. KILBORN	1/18/2022					REGION NO. 10 / STATE WASH
ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062
CHECKED BY: M. WRAY	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

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SEE CT01.00

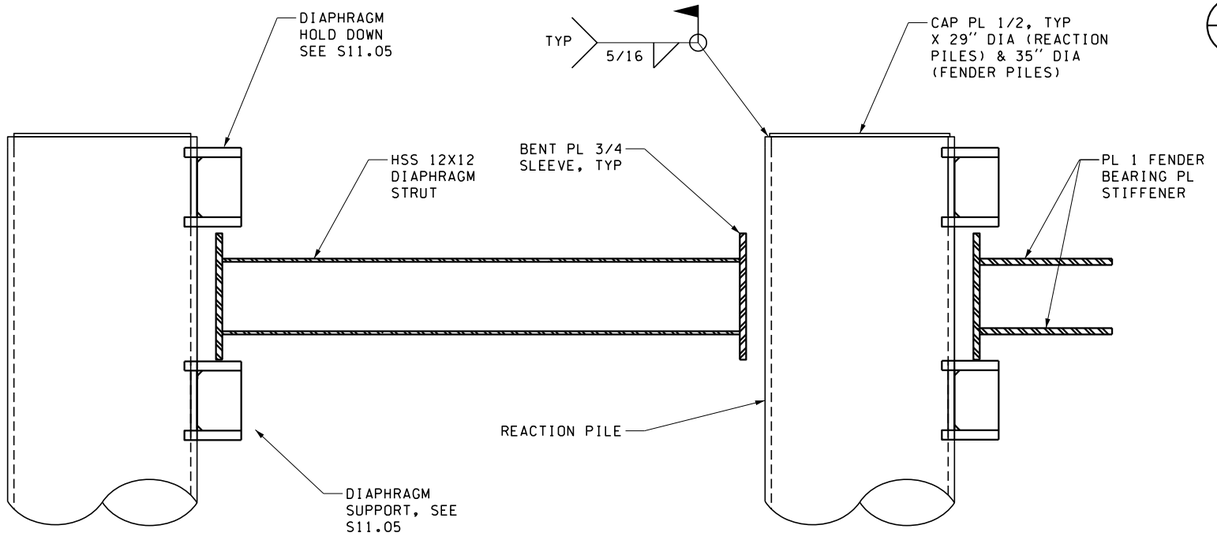
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

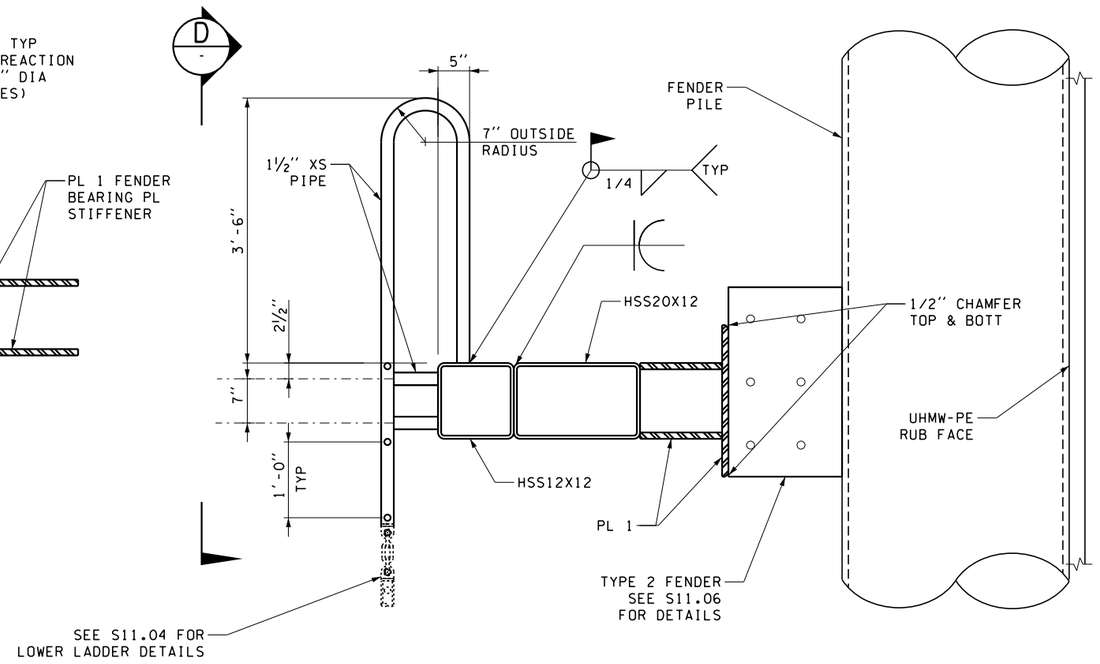
WINGWALL DIAPHRAGM PLAN

S10.02

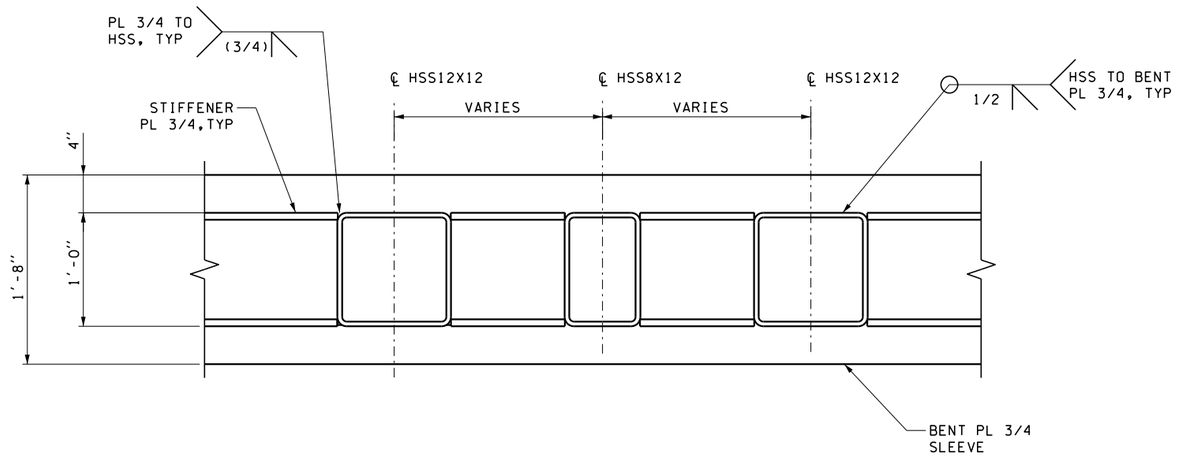
SHEET 77 OF 124 SHEETS



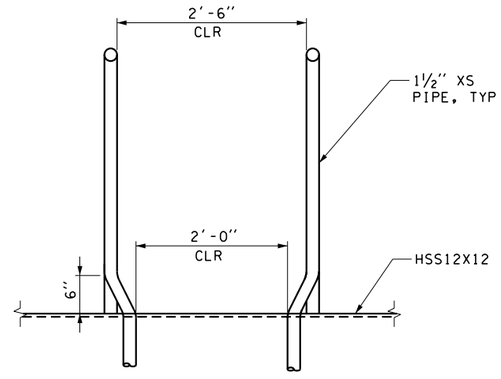
A S10.02 SECTION - DIAPHRAGM



B S10.02 SECTION - AT FENDER PILE



C S10.02 SECTION - SLEEVE



D - VIEW

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SUBMITTAL DATE: 1/11/22	morin					*-WA-***
DESIGNED BY: R. JENS	1/18/2022					REGION NO. STATE
ENTERED BY: M. MORIN	1/18/2022					10 WASH
CHECKED BY: M. WRAY	1/18/2022					JOB NUMBER 17W062
MAR PROJ ENGR: T. CASTOR	1/18/2022					CONTRACT NO. 00****
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

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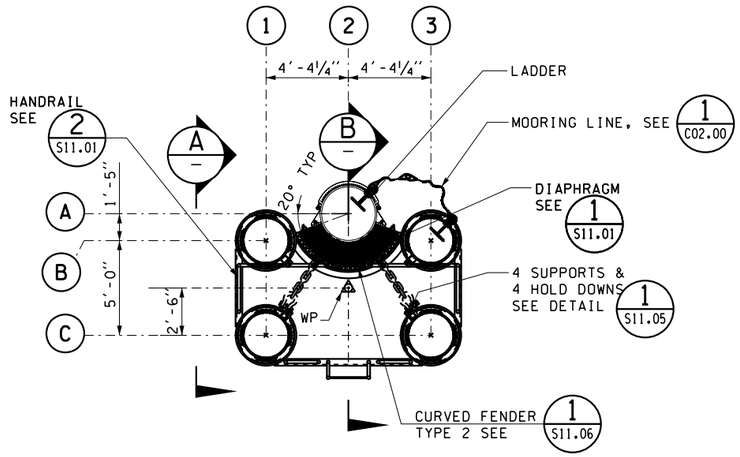
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

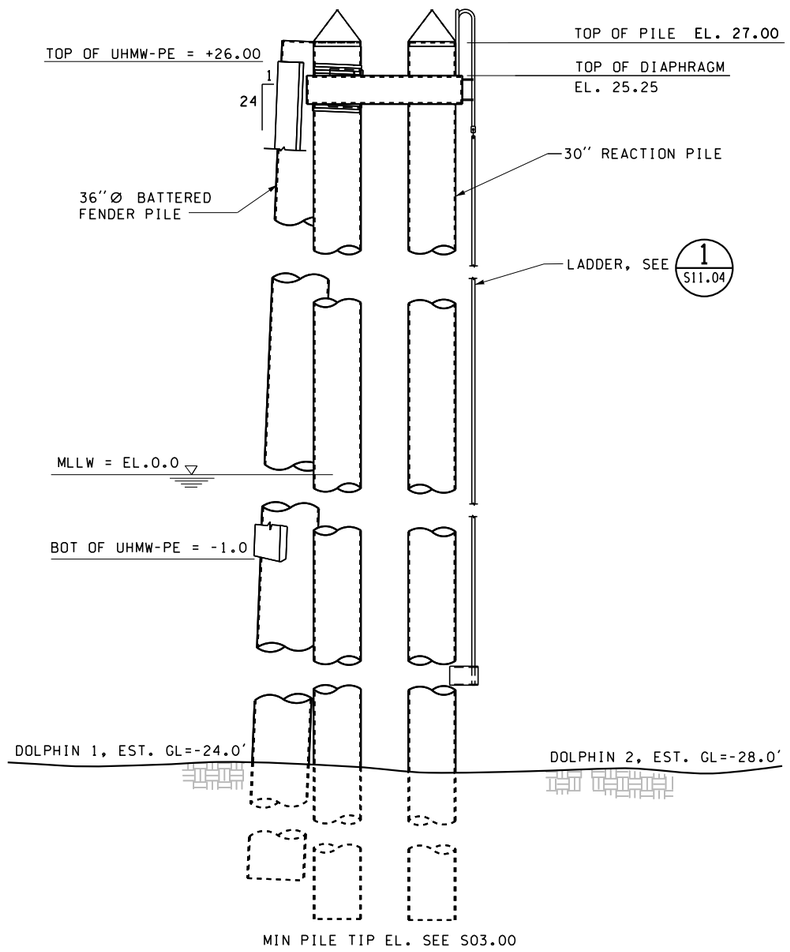
WINGWALL SECTIONS

S10.03

SHEET 78 OF 124 SHEETS

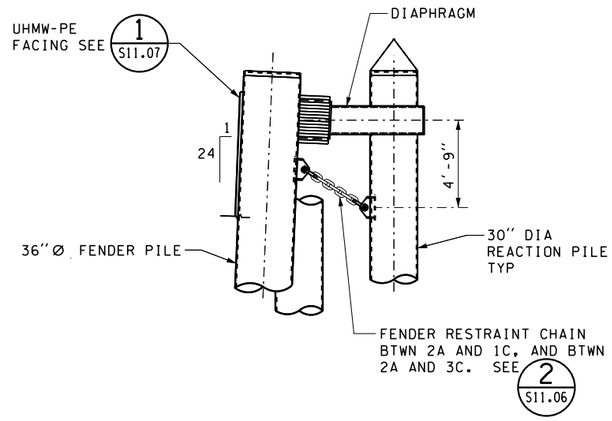


1 C02.00 DETAIL (DOLPHINS 1 AND 2)



A — ELEVATION

MOORING LINE, HOLD DOWNS, AND SUPPORTS NOT SHOWN FOR CLARITY



B — SECTION

HANDRAIL AND LADDER NOT SHOWN

DATUM

MLLW
1982-2001

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SUBMITTAL DATE: 1/11/22						*-WA-***
DESIGNED BY: T. BERTUCCI	1/18/2022					REGION NO. 10 STATE WASH
ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062
CHECKED BY: C. STEARNS	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

THOMAS J. BERTUCCI — STATE OF WASHINGTON — 37259 — REGISTERED PROFESSIONAL ENGINEER

SEE CT01.00

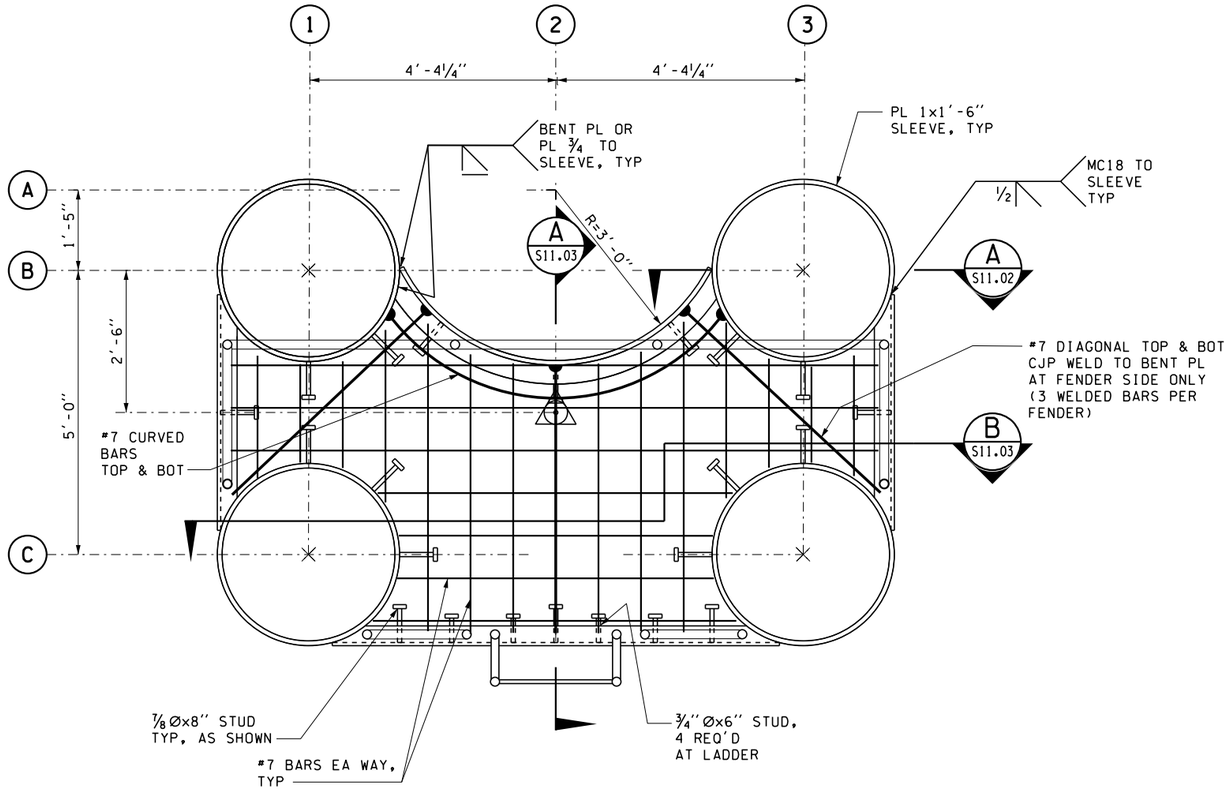
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

DOLPHIN PLAN, ELEVATION AND SECTION

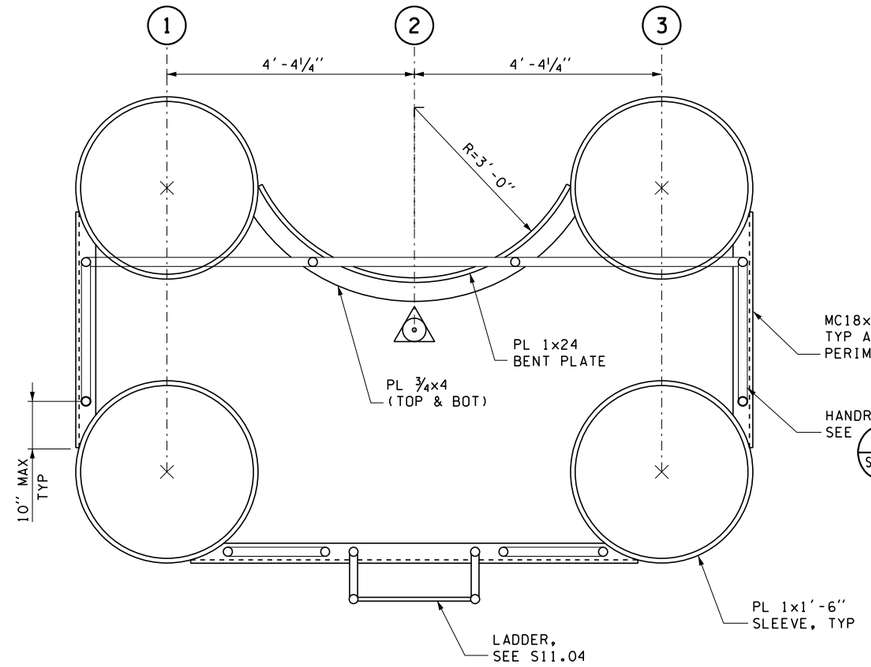
S11.00

SHEET 79 OF 124 SHEETS



1 S11.00 DIAPHRAGM DETAIL

SCREED TOP OF CONCRETE ⅛"/FOOT FOR DRAINAGE
BEARING PLATES NOT SHOWN FOR CLARITY



2 S11.00 HANDRAIL PLAN

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ENTERED BY: M. MORIN	1/18/2022					10 WASH
CHECKED BY: C. STEARNS	1/18/2022					JOB NUMBER
MAR PROJ ENGR: T. CASTOR	1/18/2022					17W062
DGN ENGR MNGR:						CONTRACT NO.
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		00****

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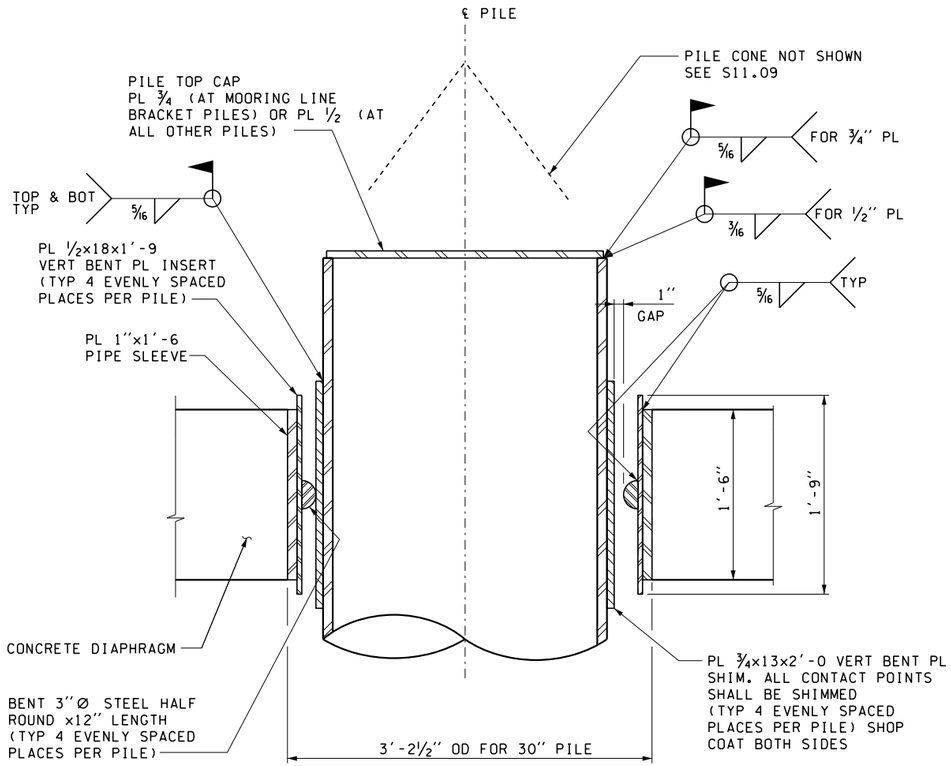
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

DOLPHIN DIAPHRAGM AND HANDRAIL

S11.01

SHEET 80 OF 124 SHEETS



A / S11.01 SECTION - TYP SLEEVE

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ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062
CHECKED BY: C. STEARNS	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

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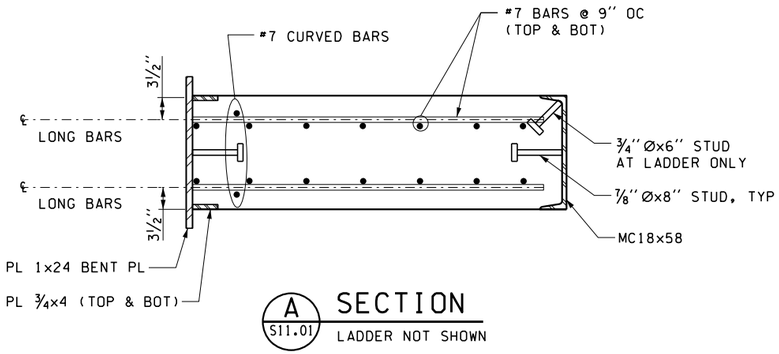
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

DOLPHIN SLEEVE SECTION

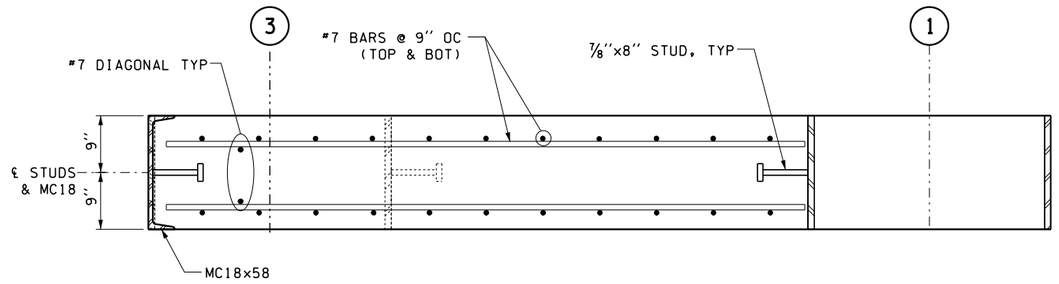
S11.02

SHEET 81 OF 124 SHEETS



A S11.01 SECTION

LADDER NOT SHOWN



B S11.01 SECTION

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ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062	
CHECKED BY: C. STEARNS	1/18/2022					CONTRACT NO. 00****	
MAR PROJ ENGR: T. CASTOR	1/18/2022						
DGN ENGR MNGR:							
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY			

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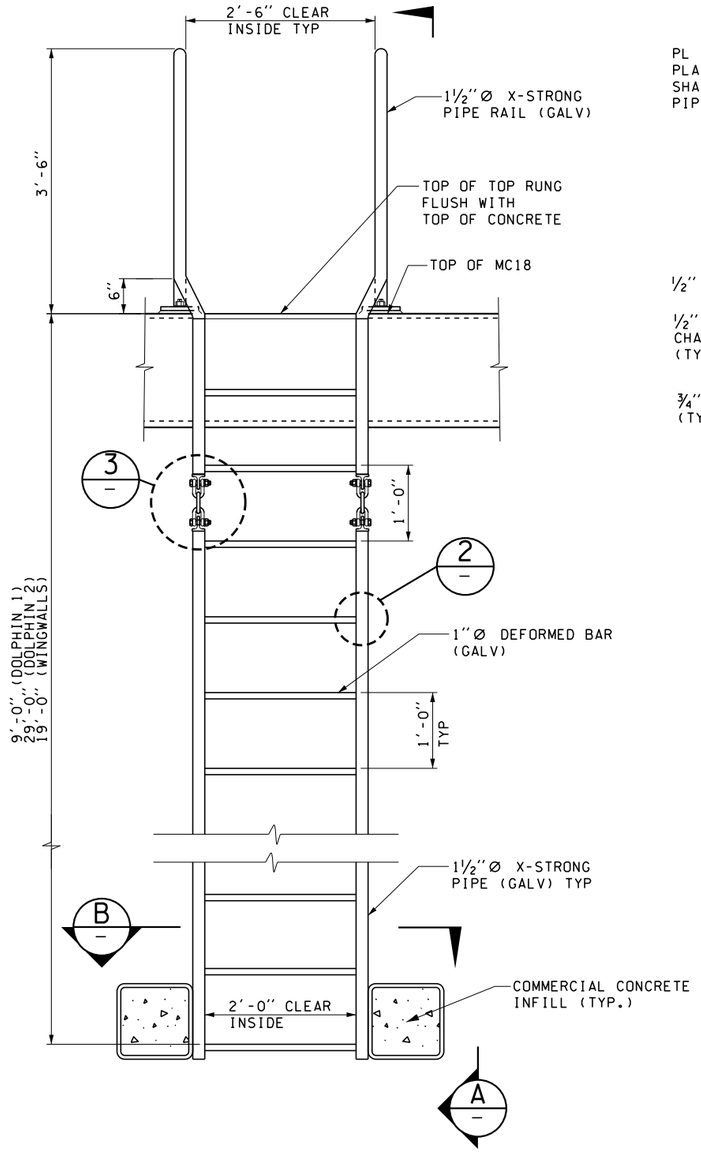
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

DOLPHIN DIAPHRAGM SECTIONS

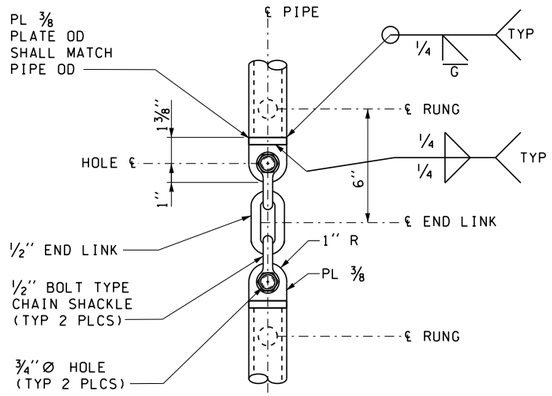
S11.03

SHEET 82 OF 124 SHEETS



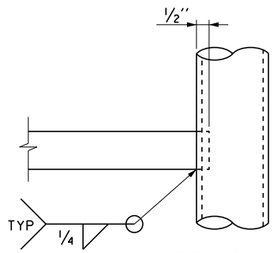
1 S11.00 LADDER

END PL¼ EA END,
NOT SHOWN

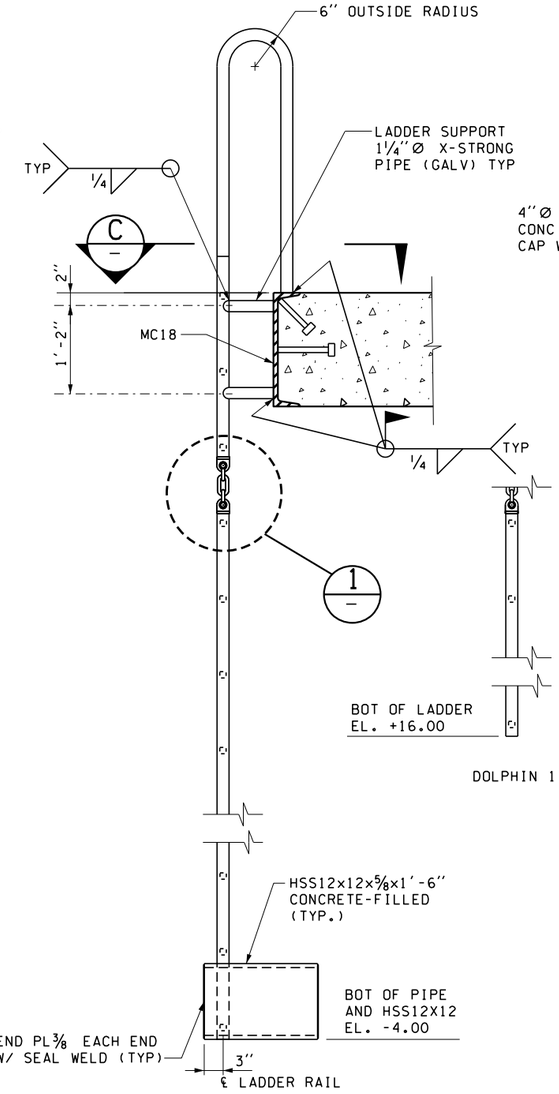


NOTE: APPLY THREADLOCKER TO SHACKLE PIN THREADS PRIOR TO INSTALLING NUTS. DO NOT INSTALL SHACKLE COTTER PINS.

1 DETAIL



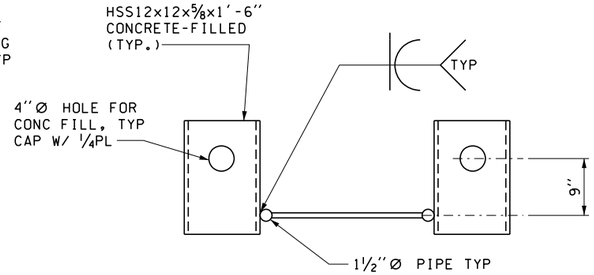
2 DETAIL



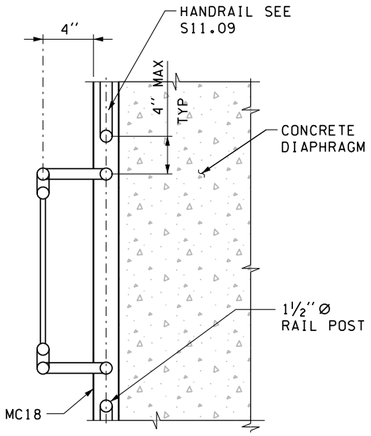
DOLPHIN 2

NOTE: DOLPHIN 1 IS LOCATED ADJACENT TO AND WILL BE ACCESSED FROM THE TRASK PIER AND DOES NOT REQUIRE A FULL-LENGTH WEIGHTED LADDER. DOLPHIN 2 AND WINGWALLS REQUIRE A WEIGHTED LADDER.

A SECTION



B SECTION



C SECTION

DATUM
MLLW
1983-2001

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SUBMITTAL DATE: 1/11/22	morin					*-WA-***
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ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062
CHECKED BY: C. STEARNS	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

THOMAS J. BERTUCCI — STATE OF WASHINGTON — 17259 — REGISTERED PROFESSIONAL ENGINEER

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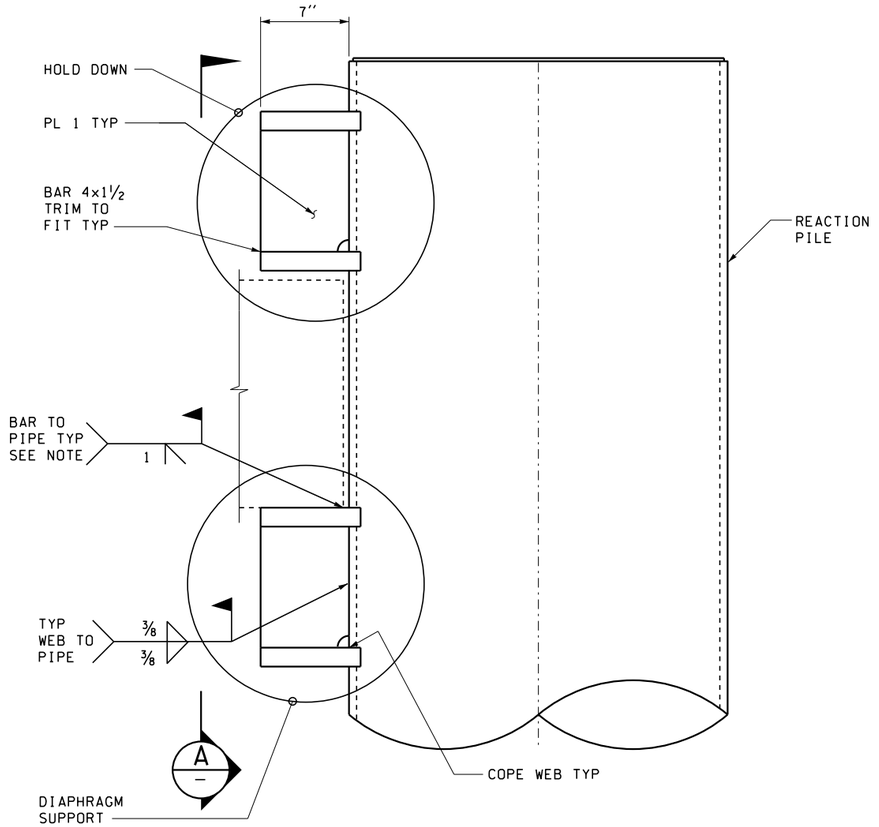
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

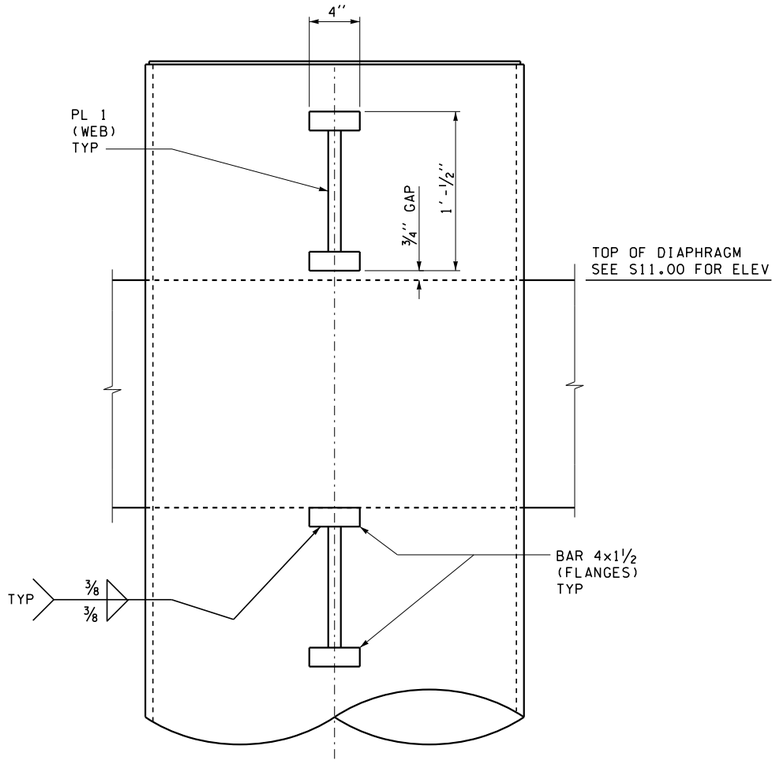
LADDER SECTIONS AND DETAILS

S11.04

SHEET 83 OF 124 SHEETS



1 / S11.00 DETAIL - DIAPHRAGM HOLD DOWN & SUPPORT



A / – VIEW

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ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062
CHECKED BY: C. STEARNS	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

THOMAS J. BERTUCCI — STATE OF WASHINGTON — 37259 — REGISTERED PROFESSIONAL ENGINEER

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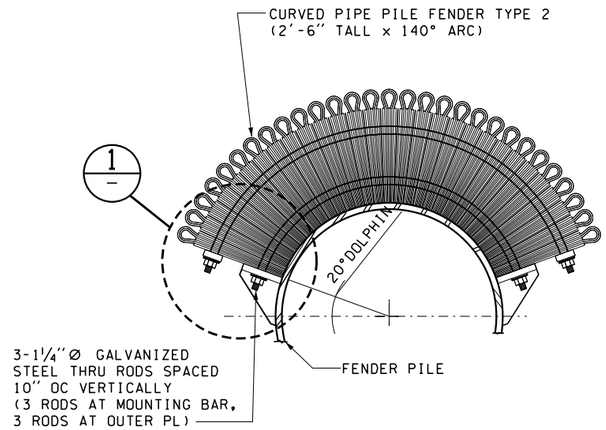
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

DIAPHRAGM HOLD DOWN AND SUPPORT

S11.05

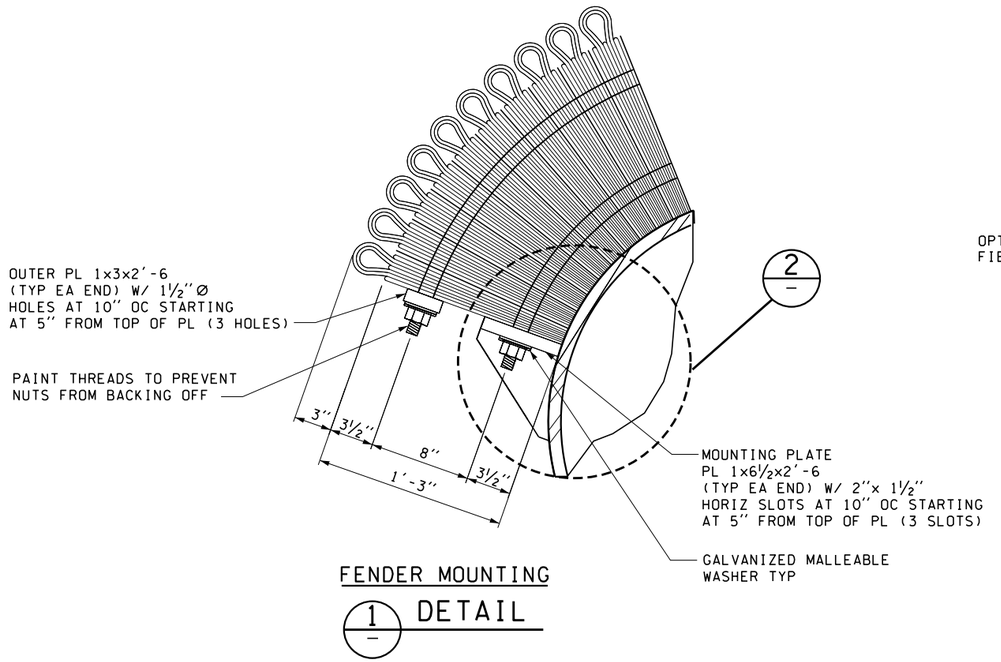
SHEET 84 OF 124 SHEETS



FENDER ARRANGEMENT

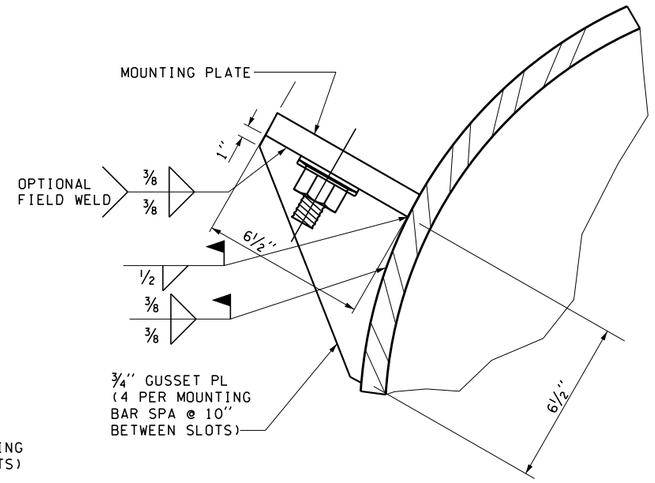
1 DETAIL

S11.00

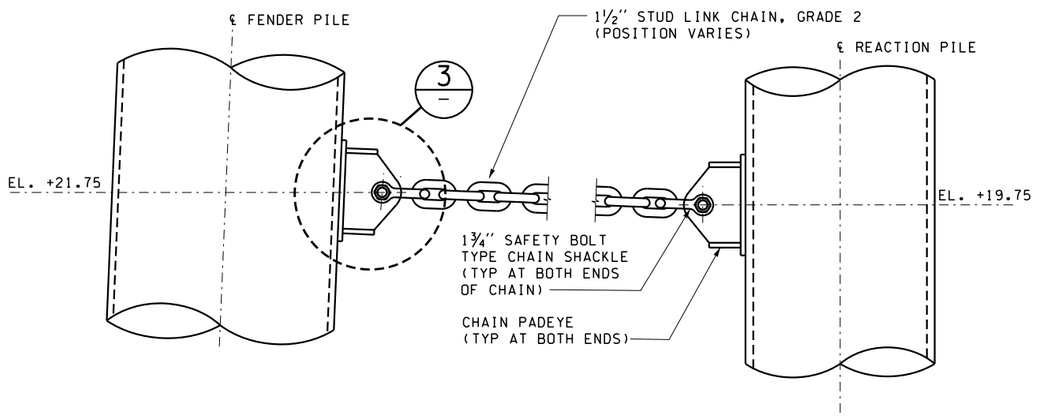


FENDER MOUNTING

1 DETAIL



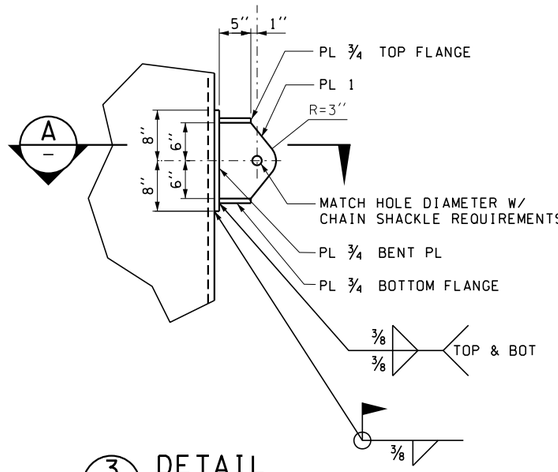
2 DETAIL



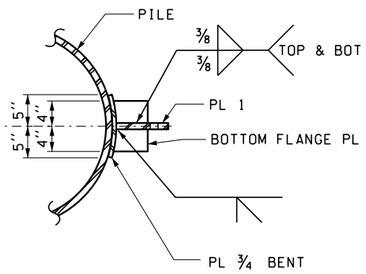
2 DETAIL

S11.00

NOTE: INSTALL CHAIN ASSEMBLY ADEQUATELY TAUT TO PROVIDE FOR 1" COMPRESSION OF SOFT LOOP TYPE FENDER.



3 DETAIL



A SECTION

DATUM

MLLW
1983-2001

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ENTERED BY: M. MORIN	1/18/2022				REGION NO. STATE
CHECKED BY: C. STEARNS	1/18/2022				10 WASH
MAR PROJ ENGR: T. CASTOR	1/18/2022				JOB NUMBER 17W062
DGN ENGR MNGR:					
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY	CONTRACT NO. 00****

THOMAS J. BERTUCCI
STATE OF WASHINGTON
37259
REGISTERED
PROFESSIONAL ENGINEER

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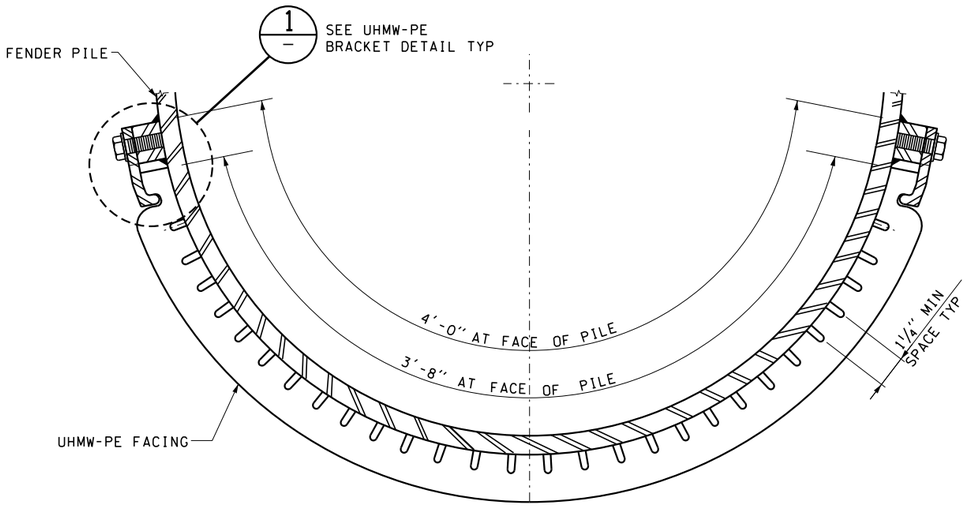
Washington State Department of Transportation
WASHINGTON STATE FERRIES

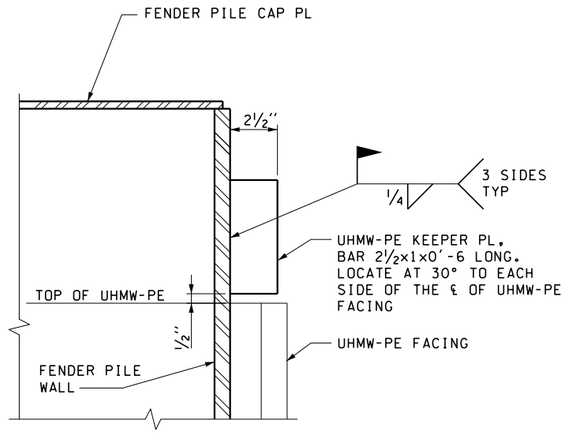
SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP
CURVED FENDER AND FENDER RESTRAINT CHAIN DETAILS

S11.06

SHEET 85 OF 124 SHEETS

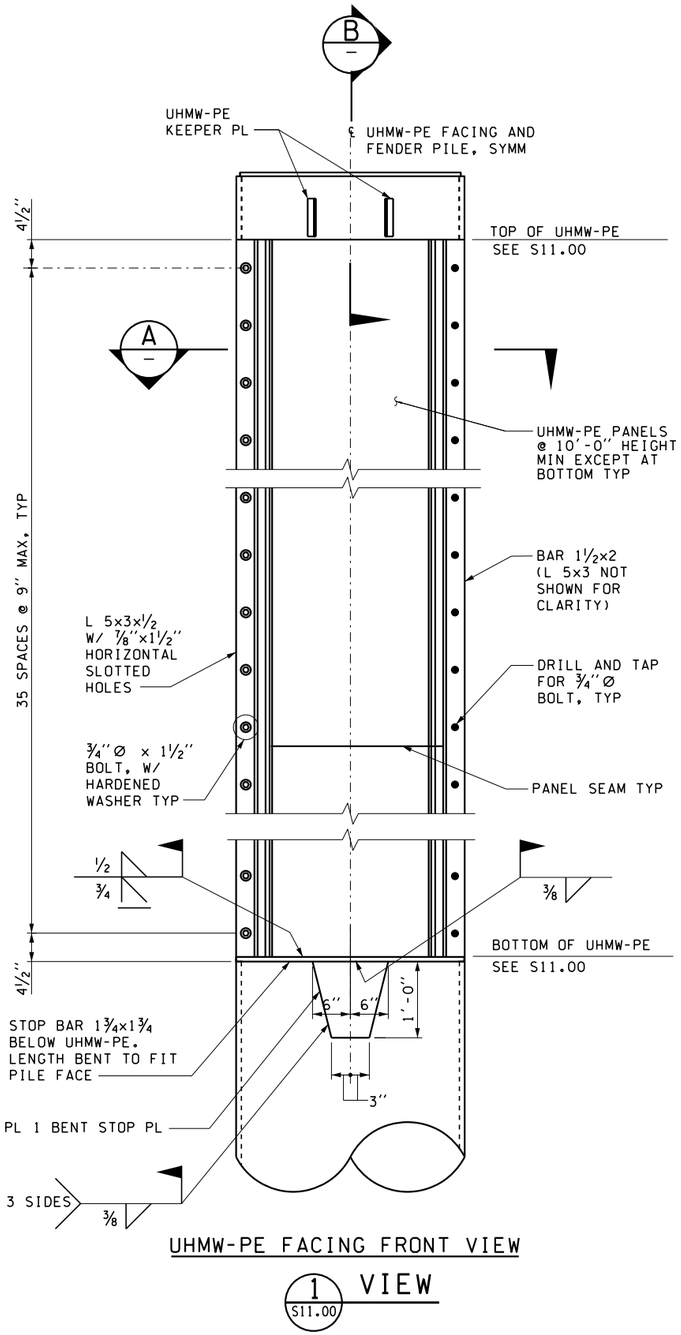


A SECTION



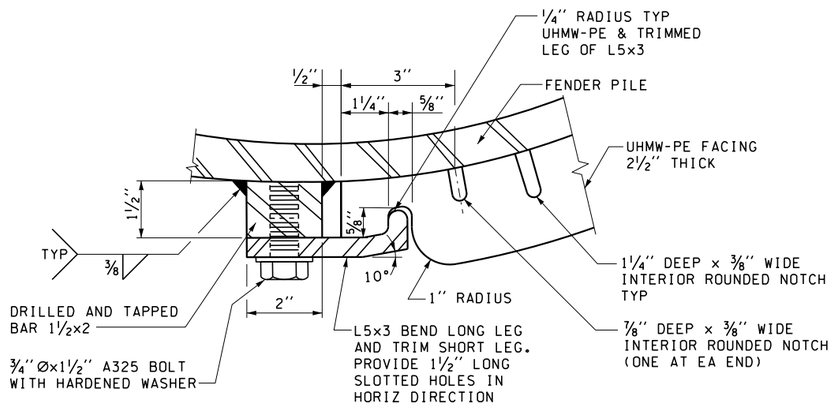
UHMW-PE KEEPER PLATE

B SECTION



UHMW-PE FACING FRONT VIEW

1 S11.00 VIEW



UHMW-PE BRACKET

1 DETAIL

DATUM
MLLW
1983-2001

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ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062
CHECKED BY: C. STEARNS	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

THOMAS J. BERTUCCI — STATE OF WASHINGTON — 37259 — REGISTERED PROFESSIONAL ENGINEER

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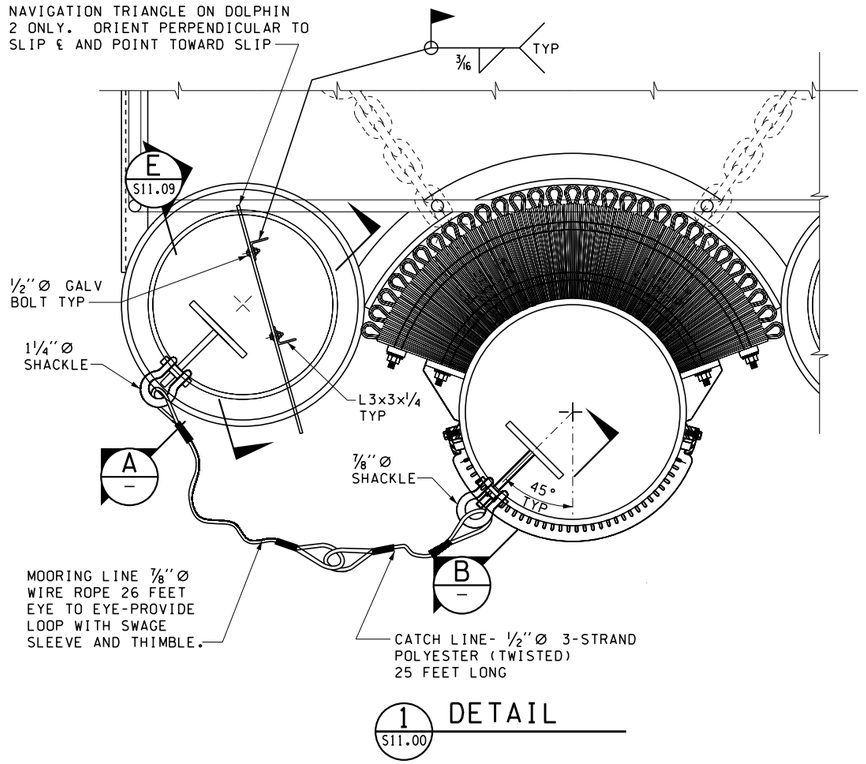
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

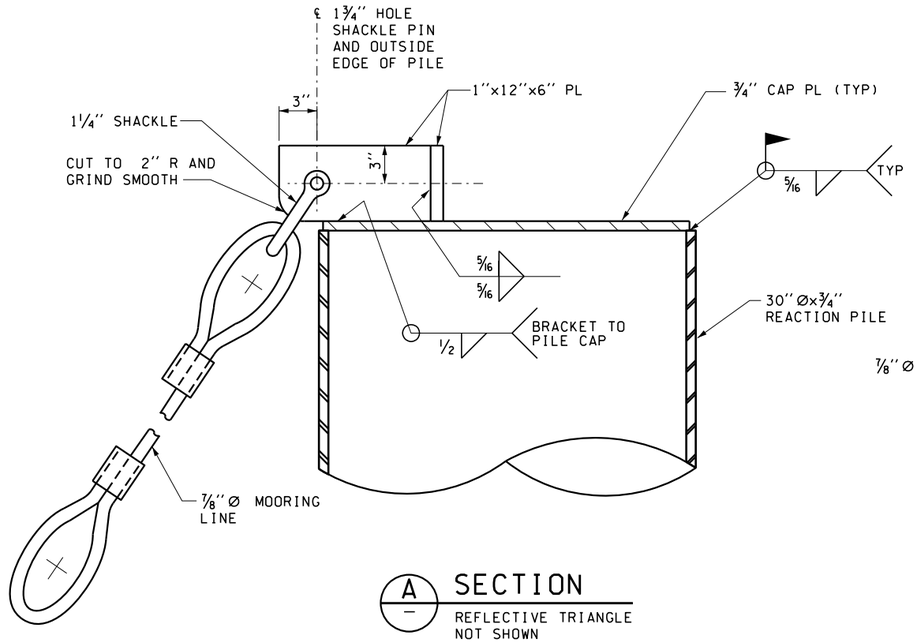
UHMW-PE FACING DETAILS

S11.07

SHEET 86 OF 124 SHEETS

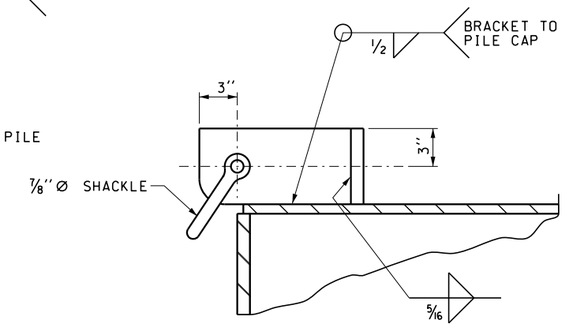


1 S11.00 DETAIL



A — SECTION

REFLECTIVE TRIANGLE NOT SHOWN



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ENTERED BY: M. MORIN	1/18/2022					REGION NO. 10 / STATE WASH
CHECKED BY: C. STEARNS	1/18/2022					
MAR PROJ ENGR: T. CASTOR	1/18/2022					JOB NUMBER 17W062
DGN ENGR MNGR:						CONTRACT NO. 00****
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

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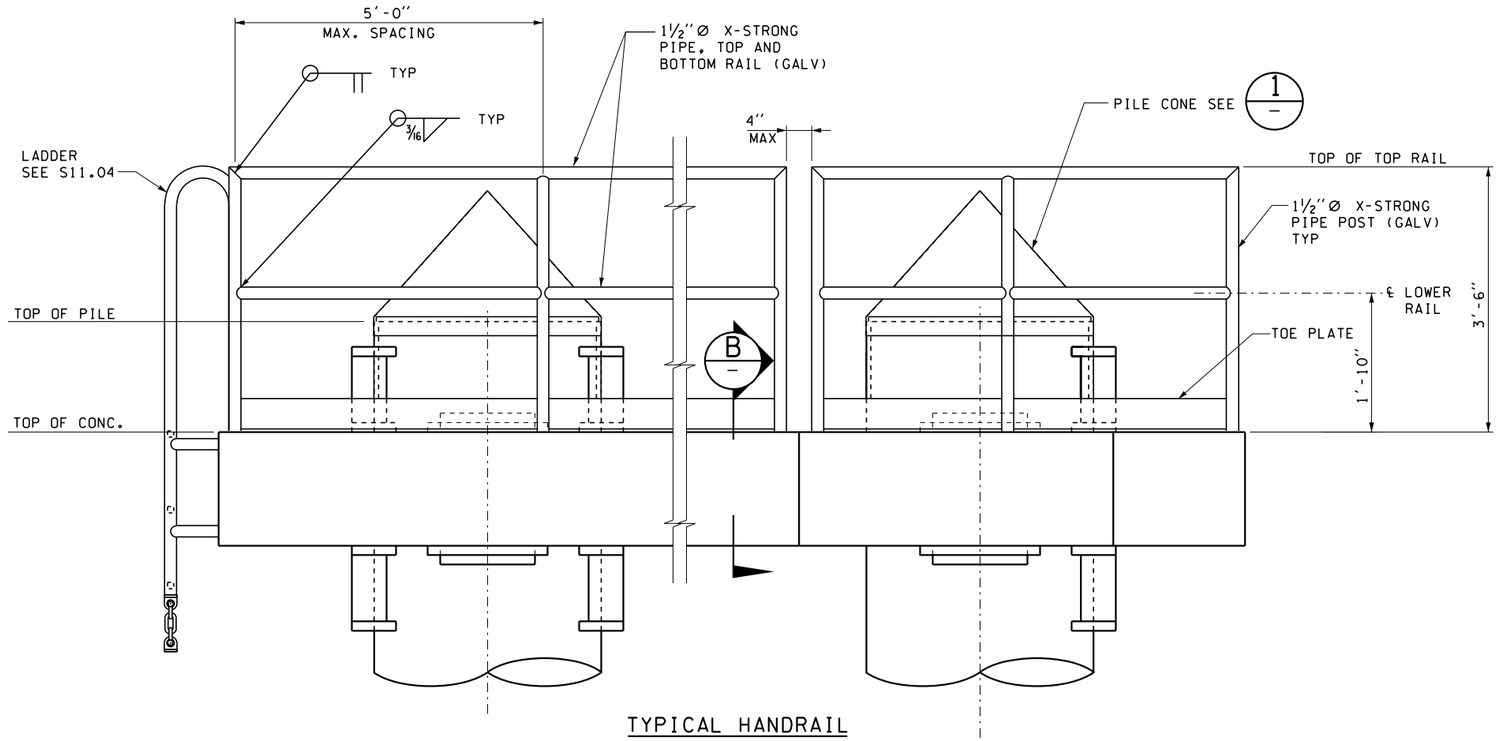
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

MOORING LINE DETAILS

S11.08

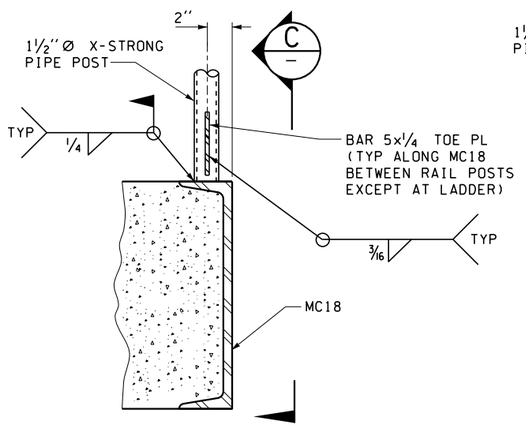
SHEET 87 OF 124 SHEETS



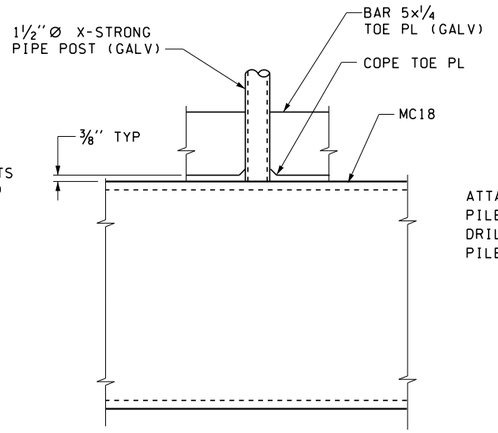
TYPICAL HANDRAIL DETAIL

1/S11.01

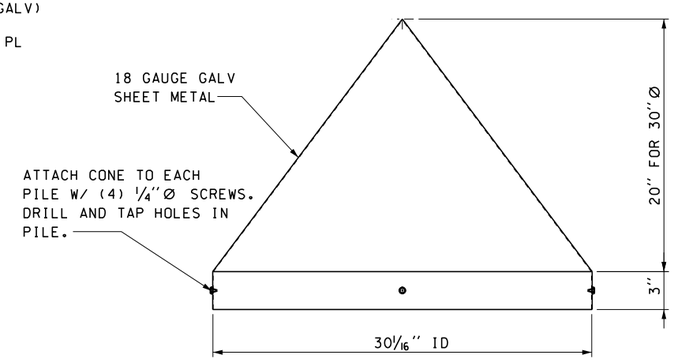
NOTE: THIS ELEVATION IS SCHEMATIC ONLY



B/— SECTION



C/— VIEW



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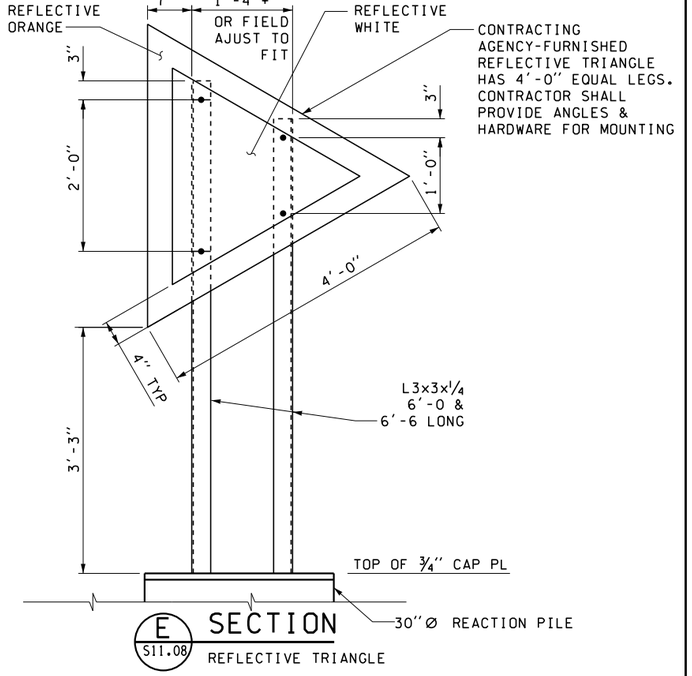

E/S11.08 SECTION
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ENTERED BY: M. MORIN	1/18/2022					10 WASH
CHECKED BY: C. STEARNS	1/18/2022					JOB NUMBER 17W062
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						CONTRACT NO. 00****
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

THOMAS J. BERTUCCI — STATE OF WASHINGTON — 37259 — REGISTERED PROFESSIONAL ENGINEER

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Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

HANDRAIL DETAILS

S11.09

SHEET 88 OF 124 SHEETS

GENERAL MECHANICAL NOTES:

1. THE CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH THESE CONTRACT DRAWINGS, THE CONTRACT SPECIFICATIONS, AND ALL OTHER CONTRACT DOCUMENTS AS DEFINED WITHIN THE SPECIFICATIONS.
2. THE DESIGN INTENT IS FOR THE CONTRACTOR TO USE ACCEPTED INDUSTRY METHODS TO ACHIEVE ALIGNMENT TOLERANCE FOR PROPER OPERATION OF THE OPERATING SYSTEM. ALL RIGGING, SCAFFOLDING, MEASUREMENTS, ALIGNMENT AND INSTALLATION TOOLS REQUIRED FOR THE JOB ARE CONSIDERED PART OF THE WORK AND THE PAY ITEMS. THE FINAL MACHINERY INSTALLATION SHALL RESULT IN PROPER FUNCTION THROUGHOUT THE COMPLETE RANGE OF OPERATION.
3. THE CONTRACTOR SHALL PREPARE AND SUBMIT DETAILED SHOP DRAWINGS AND ASSEMBLY DRAWINGS BASED ON THE CONTRACT DOCUMENTS. IT WILL BE THE CONTRACTOR's RESPONSIBILITY TO DETAIL, COORDINATE AND VERIFY THE RELATIONSHIP AND ASSEMBLY OF ALL PARTS FOR A COMPLETE WORKING SYSTEM. ALL REQUIRED MACHINING, SPECIAL SHIMMING, LUBRICATION, PAINTING, TESTING, AND ASSEMBLY SHALL BE CONSIDERED PART OF THE WORK.
4. WELDING SHALL BE IN ACCORDANCE WITH AWS BRIDGE WELDING CODE AASHTO/AWS-D1.5M/D1.5:2020.
5. WHERE ADDITIONAL SHIMS ARE REQUIRED, PROVIDE SHIMS FOR LEVELING AND ALIGNING ALL MACHINERY COMPONENTS. PROVIDE SHIMS OF 1/2" NOMINAL THICKNESS, UNLESS OTHERWISE SPECIFIED, WITH VARIATIONS AS DESCRIBED IN THE SPECIFICATIONS.
6. DIMENSIONAL MACHINING TOLERANCES UNLESS OTHERWISE SPECIFIED) ARE TO THE +/- 0.005".
7. UNLESS OTHERWISE SPECIFIED, DIMENSIONS BETWEEN MACHINED SURFACES SHALL HAVE A TOLERANCE OF 0.010-INCH.
8. BLEND SMOOTH ALL TRANSITIONS OF SURFACES OF MACHINERY PARTS. MACHINE ALL SURFACES OF FORGINGS TO THE DIMENSIONS SHOWN IN THE CONTRACT DOCUMENTS. MACHINE ALL MATING SURFACES OF MACHINERY PARTS AND SUPPORTS.
9. THE EDGES AND CORNERS OF ALL MACHINERY PARTS SHALL BE DETAILED AND MACHINED WITH SUITABLE FILLETS AND CHAMFERS. THE MINIMUM RADIUS OR CHAMFER SHALL BE 1/8" IF THE PART THICKNESS IS LESS THAN 1" AND 1/4" IF THE PART THICKNESS IS EQUAL TO OR GREATER THAN 1", UNLESS OTHERWISE NOTED. IN THE CASE OF MATING PARTS, ALLOWANCE SHALL BE MADE FOR THE PROPER FIT AND ASSEMBLY. SHOW SUCH DETAILS ON SHOP DRAWINGS.
10. MACHINERY DIMENSIONS SHOWN ON THE DRAWINGS ARE DIMENSIONS AFTER MACHINING. UNLESS OTHERWISE INDICATED OR REQUIRED FOR THE PROPER ASSEMBLY OF PART, DIMENSIONAL TOLERANCES FOR MACHINERY IN GENERAL SHALL BE AS FOLLOWS:

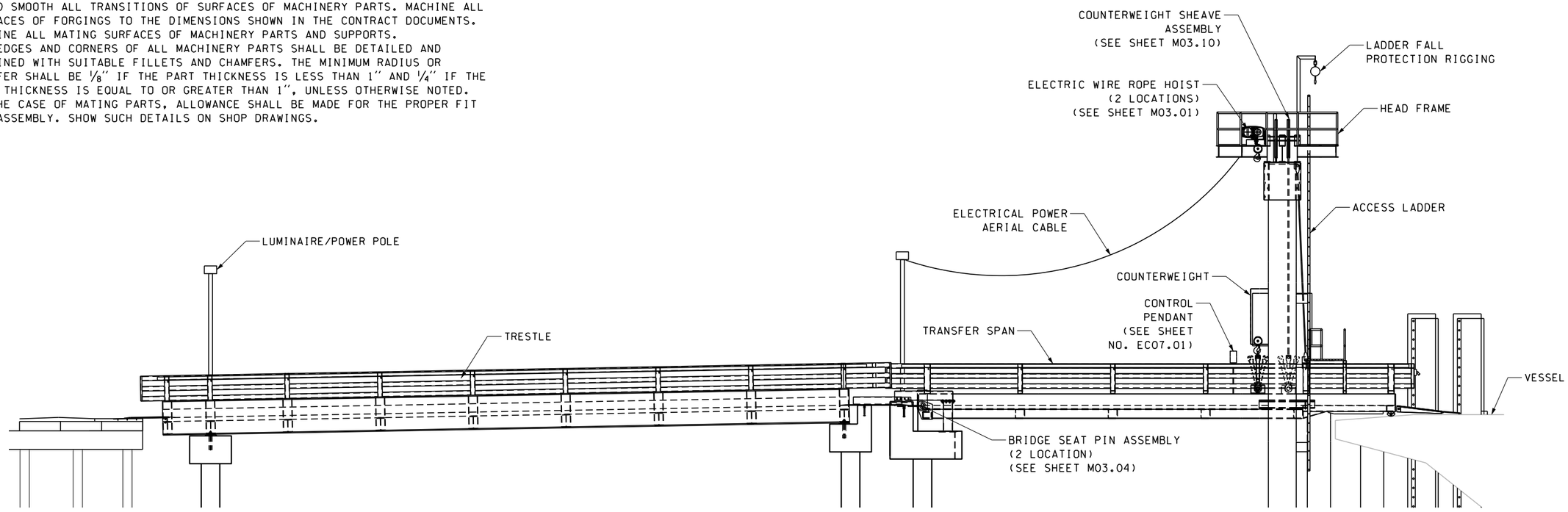
SURFACES STRAIGHTNESS:	— 0.010
FLATNESS:	▱ 0.010
PARALLELISM:	// 0.005
PERPENDICULARITY: (PER LINEAR FOOT)	⊥ 0.005 —
ANGULARITY: (PER LINEAR FOOT)	∠ 0.02 —
POSITION: (FEATURES WITHIN A COMPONENT)	⌖ 0.02 —
CONCENTRICITY:	◎ 0.005 —
CIRCULAR RUNOUT:	↗ 0.005 —

11. FITS AND FINISHES FOR MACHINERY SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:

SURFACE	FIT	FINISH (MICROINCHES)
MACHINERY BASE ON STEEL	-	250
SHAFT JOURNALS	RC6	8
JOURNAL BUSHINGS	RC6	16

WIRE ROPE HOIST

1. THE HOIST ASSEMBLY IS NOT DESIGNED FOR NOR INTENDED TO LIFT PEOPLE ON THE SPAN. PERSONNEL SHALL REMAIN OFF THE LIFT DURING OPERATION. REFER TO THE SPECIFICATIONS FOR HOIST OPERATION REQUIREMENTS.



FERRY SLIP F ELEVATION

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DESIGNED BY: R. ALGAZI	1/18/2022					REGION NO. STATE
ENTERED BY: R. PEREZ	1/18/2022					10 WASH
CHECKED BY: D. NYARKO	1/18/2022					JOB NUMBER 17W062
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						CONTRACT NO. 00****
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

ROBERT ALGAZI — STATE OF WASHINGTON — 20102852 — REGISTERED PROFESSIONAL ENGINEER

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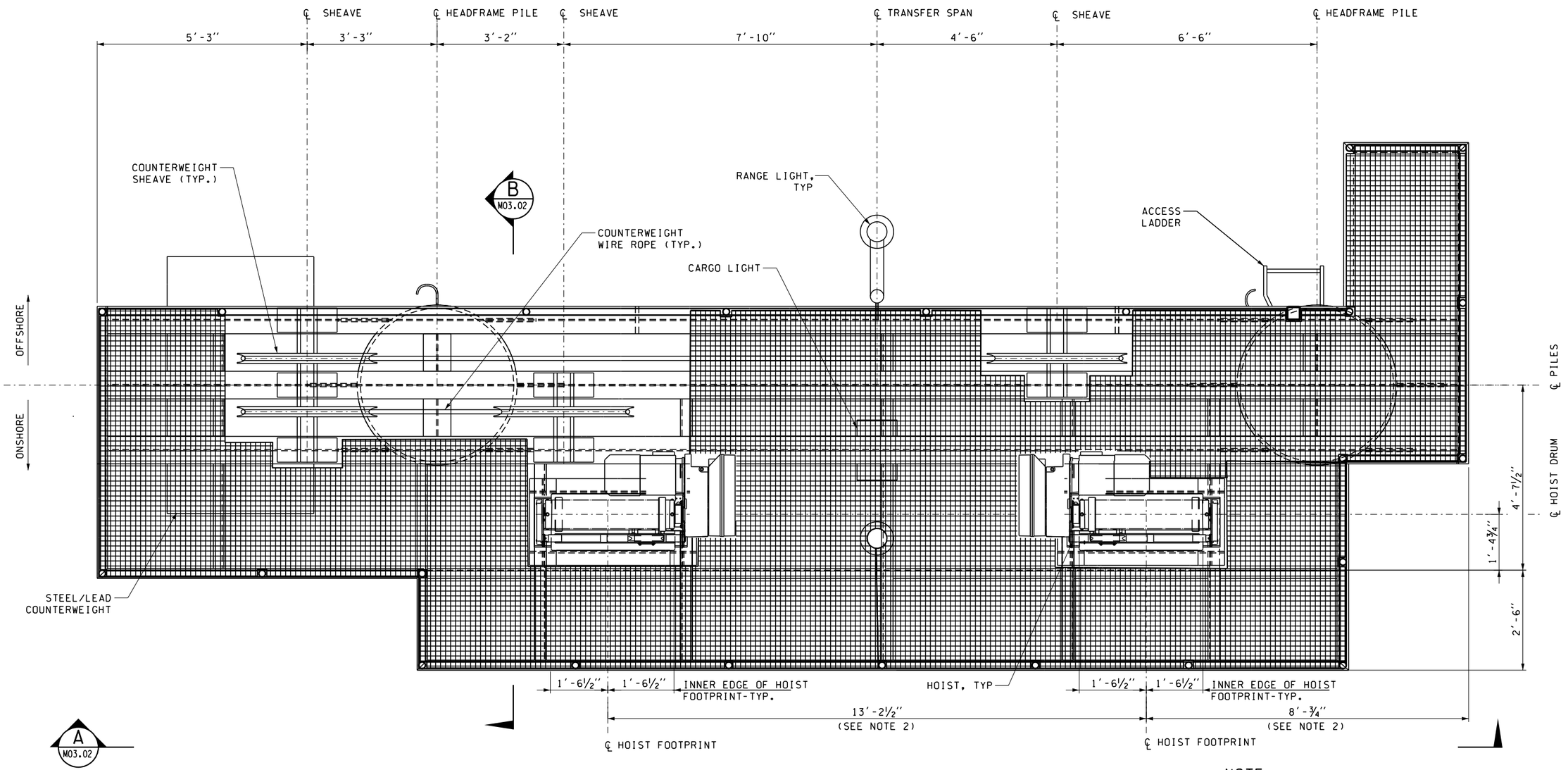
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

MECHANICAL NOTES AND ELEVATION

M03.00

SHEET 89 OF 124 SHEETS



PLAN - HEADFRAME

NOTE

1. REFER TO SHEET M03.00 FOR MACHNERY GENERAL NOTES.
2. CONTRACTOR TO VERIFY LOCATION OF HOIST AS NOTED IN THE SPECIFICATIONS.

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ENTERED BY: R. PEREZ	1/18/2022					10 WASH
CHECKED BY: J. KILBORN	1/18/2022					JOB NUMBER
MAR PROJ ENGR: T. CASTOR	1/18/2022					17W062
DGN ENGR MNGR:						CONTRACT NO.
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		00****

ROBERT ALGAZI STATE OF WASHINGTON 21002852 REGISTERED PROFESSIONAL ENGINEER

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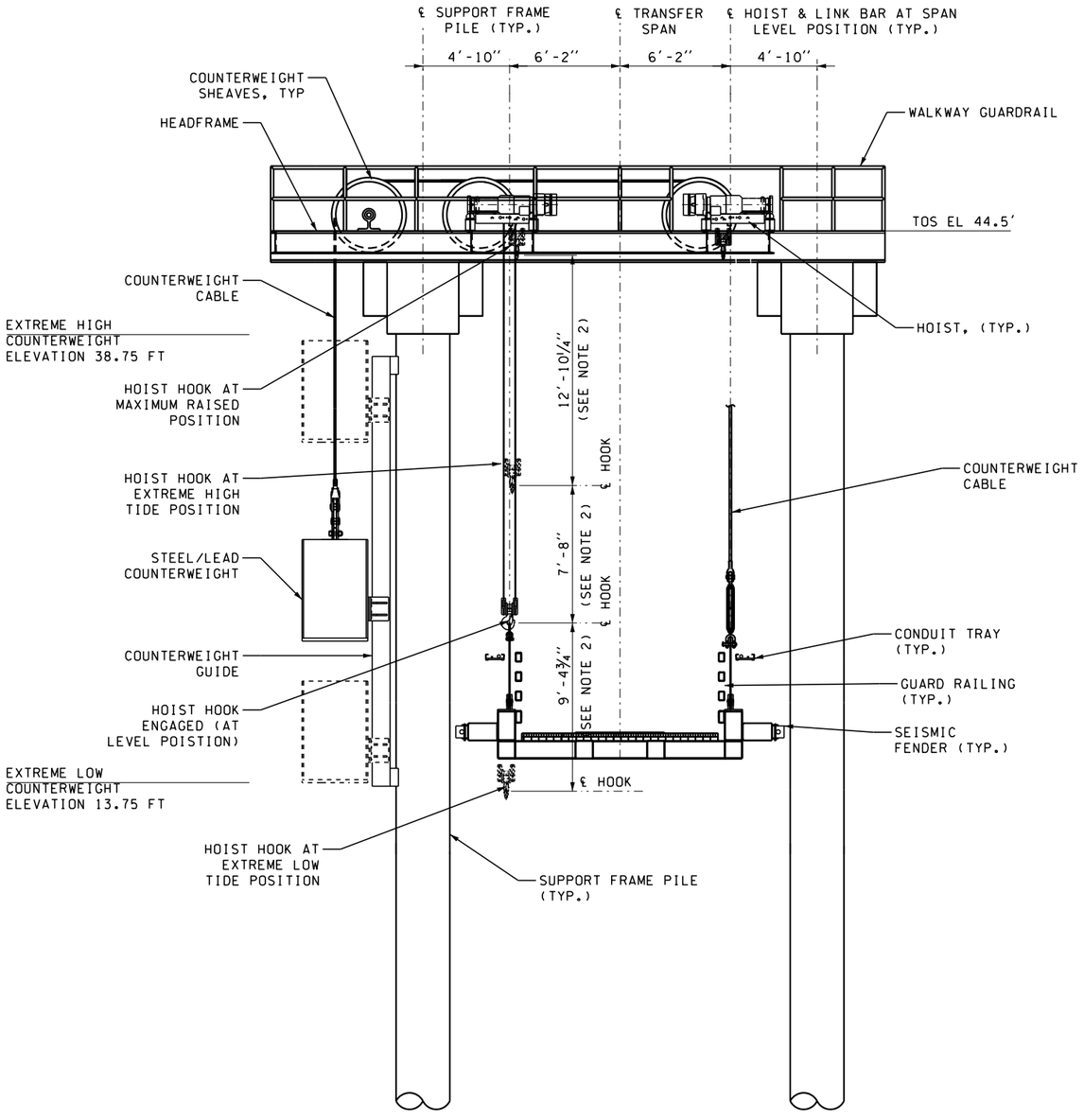
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

HOIST SYSTEM PLAN

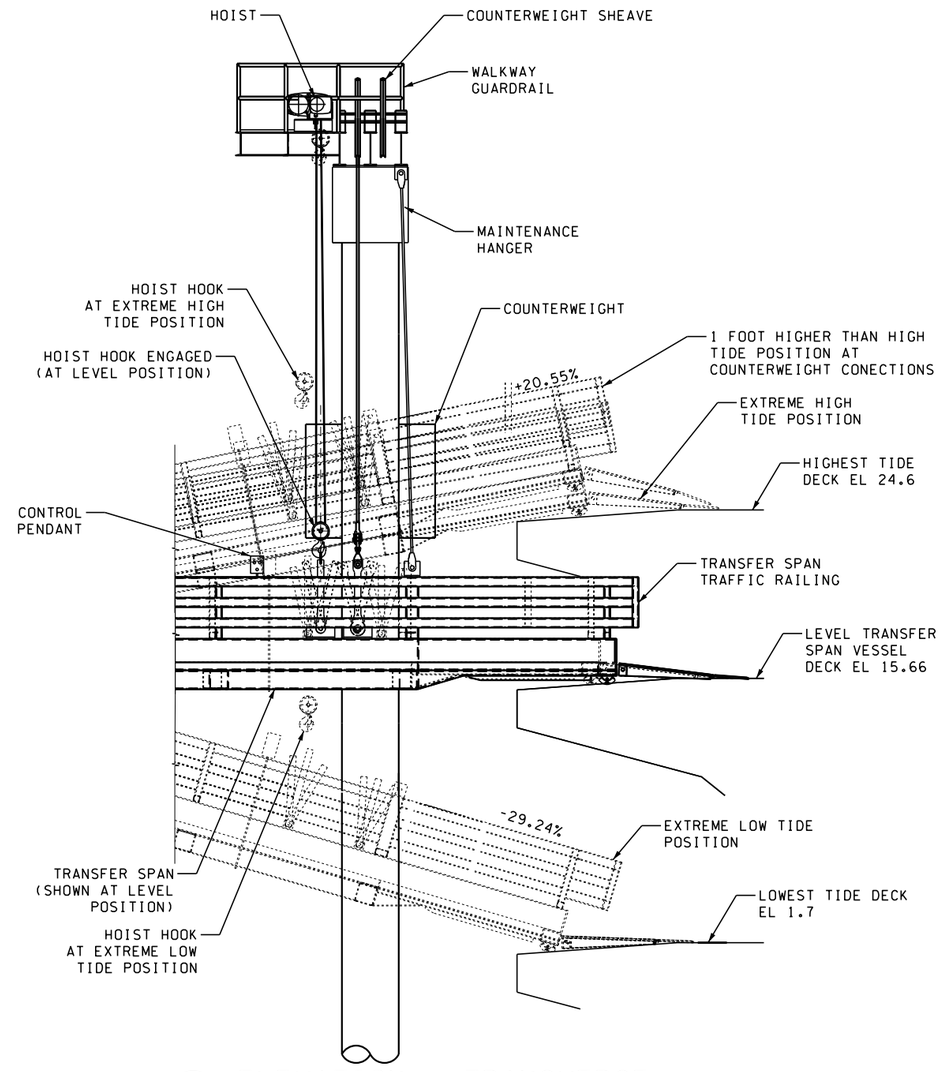
M03.01

SHEET 90 OF 124 SHEETS



A M03.01 ELEVATION - MECHANICAL SYSTEM

(TRANSFER SPAN SHOWN AT LEVEL POSITION)



B M03.01 ELEVATION - TRANSVERSE

NOTES:

1. REFER TO SHEET M03.00 FOR MACHNERY GENERAL NOTES.
2. CONTRACTOR TO VERIFY LOCATION OF HOIST AS NOTED IN THE SPECIFICATIONS.
3. ANGLE OF ROTATION SHOWN ARE OPERATIONAL ANGLES.

FILE NAME: PW: WSF/Eagle Harbor/17w062SlipFtoDriveOn/PE/PE_PD/CAD/_Contract_Plans/100%17w062m03_02.dlv						
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ENTERED BY: R. PEREZ	1/18/2022					10 WASH
CHECKED BY: J. KILBORN	1/18/2022					JOB NUMBER
MAR PROJ ENGR: T. CASTOR	1/18/2022					17W062
DGN ENGR MNGR:						CONTRACT NO.
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		00****

ROBERT ALGAZI STATE OF WASHINGTON 20102852 REGISTERED PROFESSIONAL ENGINEER

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WASHINGTON STATE FERRIES

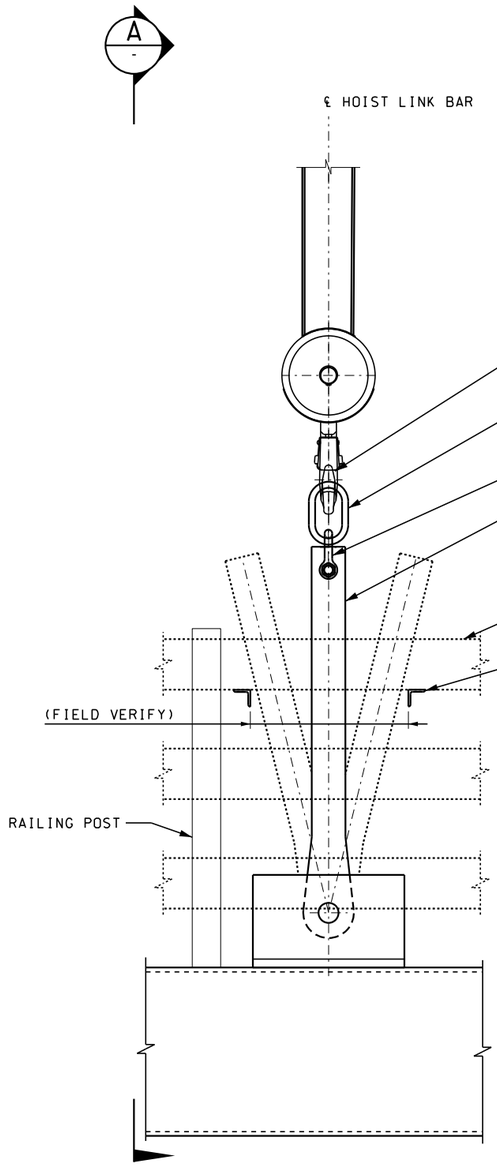
SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

HOIST SYSTEM ELEVATIONS

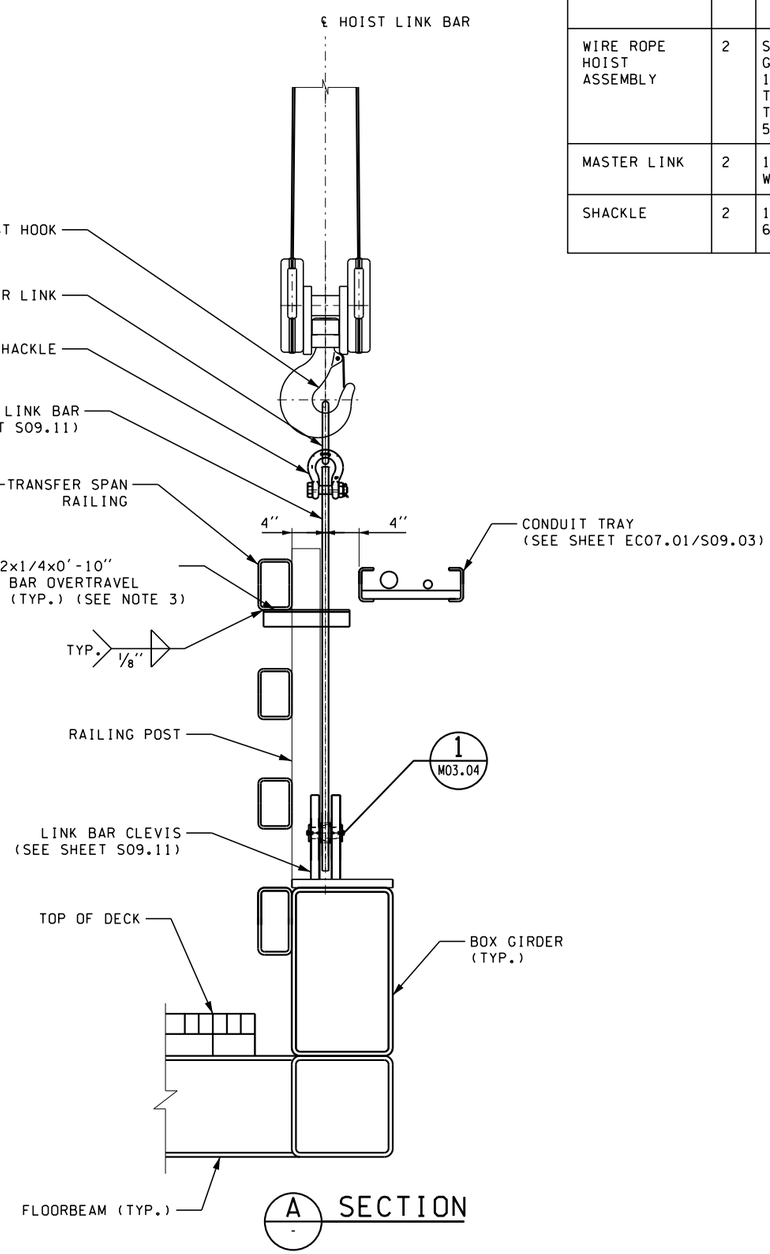
M03.02

SHEET 91 OF 124 SHEETS

TABLE OF HOIST COMPONENTS				
COMPONENT	QNTY	DESCRIPTION	MATERIAL	MANUFACTURER OR APPROVED EQUAL
WIRE ROPE HOIST ASSEMBLY	2	SH 5016-25 4/1, 6300 KG ELECTRIC WIRE ROPE HOIST, SINGLE GROOVE DRUM, GALVANIZED WIRE ROPE, 10 METER LIFT HEIGHT, LIFT SPEED LIMITED TO 1.2M/MIN, WEATHER PROOF HOUSING WITH IP 66 PROTECTION FOR OUTDOOR USE TENSION LIMIT SWITCH SET AT 1000 LBS AND LOAD SUMMATION DEVICE SET TO LIMIT TOTAL COMBINED LOAD TO 11 KIPS. 5:1 MINIMUM SAFETY FACTOR TO ROPE ULTIMATE STRENGTH AT RATED LOAD.	-	STAHL
MASTER LINK	2	15,200 LB WORKING LIMIT, 5:1 MINIMUM ULTIMATE SAFETY FACTOR TO WORKING LIMIT	GALVANIZED STEEL	CROSBY
SHACKLE	2	1'' DIAMETER BOLT TYPE ANCHOR SHACKLE, 8 1/2 METRIC TON WORKING LIMIT. 6:1 MINIMUM ULTIMATE SAFETY FACTOR TO WORKING LIMIT.	GALVANIZED STEEL	CROSBY



HOIST CONNECTION ELEVATION



A SECTION

NOTES:

1. FOR GENERAL MACHINERY NOTES SEE SHEET M03.00
2. WORK THIS DRAWING WITH SHEET M03.01 AND M03.02.
3. FIELD LOCATE LINK BAR OVERTRAVEL STOP BASED ON ACTUAL REQUIRED ROTATION ON LINK BAR.
4. FIELD ADJUST HOIST TENSION LIMIT AS REQUIRED.

FILE NAME: PW: WSF/Eagle Harbor/17w062SlipFtoDriveOn/PE/PE_PD/CAD/_Contract_Plans/100%17w062m03_03.dlv						
PRINTED: 9:37:04 AM 1/18/2022	LAST PRINTED BY:					FED.AID PROJ.NO.
SUBMITTAL DATE: 1/11/22	morin					
DESIGNED BY: R. ALGAZI	1/18/2022					*-WA-***
ENTERED BY: R. PEREZ	1/18/2022					REGION NO. STATE
CHECKED BY: J.KILBORN	1/18/2022					10 WASH
MAR PROJ ENGR: T. CASTOR	1/18/2022					JOB NUMBER 17W062
DGN ENGR MNGR:						CONTRACT NO. 00****
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

ROBERT ALGAZI — STATE OF WASHINGTON — 20102852 — REGISTERED PROFESSIONAL ENGINEER

SEE CT01.00

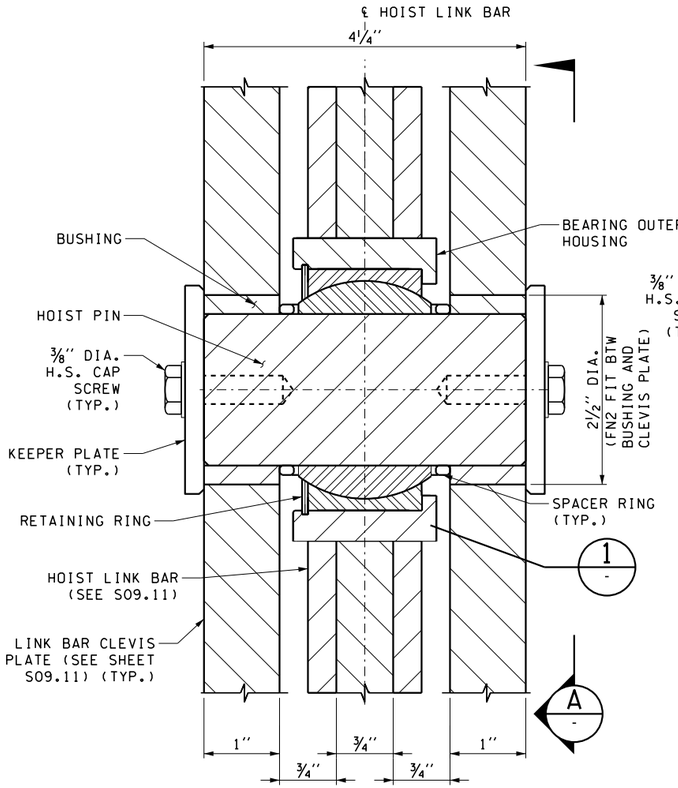
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

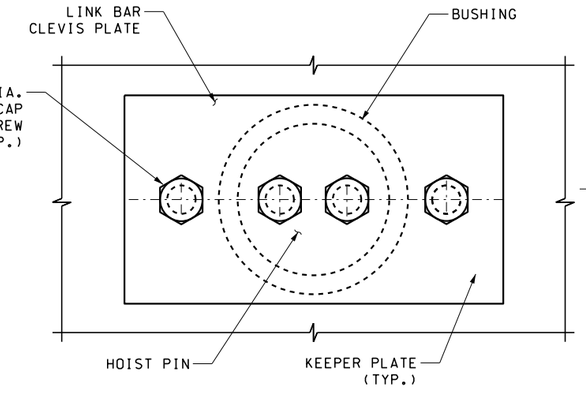
HOIST CONNECTION DETAIL

M03.03

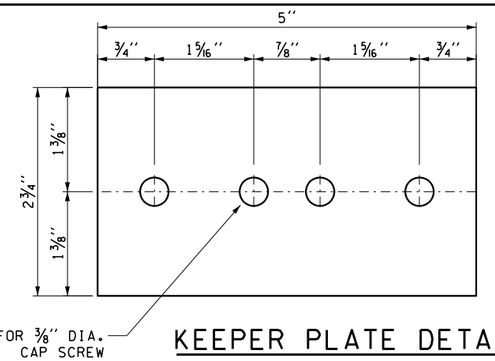
SHEET 92 OF 124 SHEETS



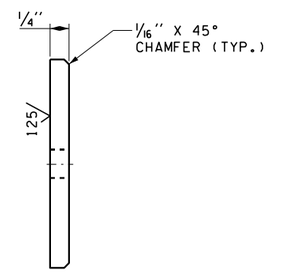
1 DETAIL
M03.03

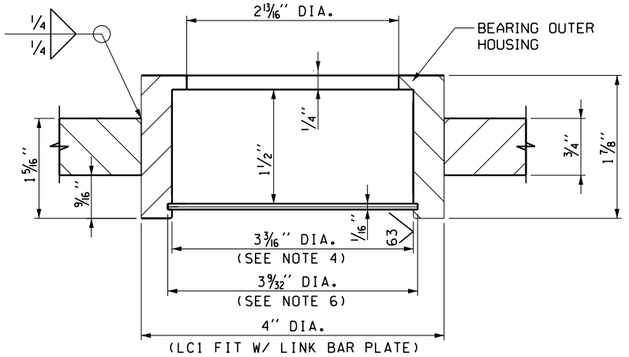


A VIEW

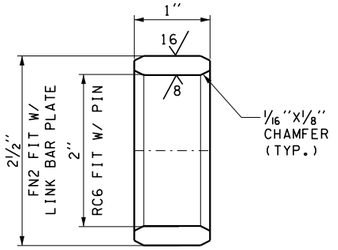


KEEPER PLATE DETAILS



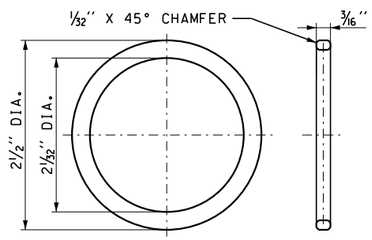


1 DETAIL

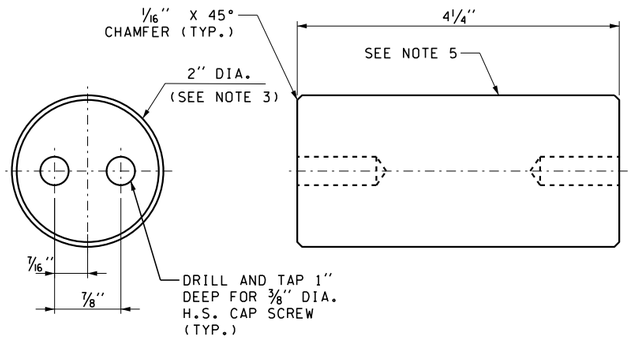


BUSHING DETAIL

TABLE OF MATERIALS				
ITEM	QNT'Y	DESCRIPTION	MATERIAL	MANUFACTURER OR APPROVED EQUIVALENT
HOIST PIN	2	HARDENED TO Rc 55-60 CHROME PLATED PER FEDERAL SPECS AMS 2460. FINISHED CHROME THICKNESS TO BE 0.001-0.003. DIMENSIONS APPLY AFTER PLATING.	4140 STEEL ALLOY	-
BUSHING	4	ALUMINUM-BRONZE	UNC C63000	-
SPACER RING	4	ALUMINUM-BRONZE	UNC C63000	-
SPHERICAL BEARING	2	DURALUBE B32-LNMSS MAINTENACE-FREE SPHERICAL BEARING WITH SELF-LUBRICATING TEFLON LINER ON I.D. OF BALL.	-	RBC
RETAINING RING	2	RR-318 RETAINING RING	-	AMERICAN RING
KEEPER PLATE	4	-	ASTM A709 GRADE 50	-
BEARING OUTER HOUSING	2	-	ASTM A709 GRADE 50	-



SPACER RING DETAILS



HOIST PIN DETAILS

NOTES:

1. WORK THIS DRAWING WITH SHEET M03.03.
2. ALL WELDING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
3. FIT BETWEEN LINK BAR PIN AND BEARING INNER DIAMETER SHALL BE AS RECOMMENDED BY SPHERICAL BEARING MANUFACTURER.
4. FIT BETWEEN BEARING OUTER DIAMETER AND BEARING OUTER HOUSING SHALL BE AS RECOMMENDED BY THE SPHERICAL BEARING MANUFACTURER.
5. HOIST LINK BAR PIN FINISH TO MEET BEARING MANUFACTURER'S RECOMMENDED FINISH.
6. GROOVE IN BEARING OUTER HOUSING FOR RETAINING RING SHALL MEET MANUFACTURER RECOMMENDED SIZE.

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SUBMITTAL DATE: 1/11/22	morin					*-WA-***
DESIGNED BY: R. ALGAZI	1/18/2022					REGION NO. 10 STATE WASH
ENTERED BY: R. PEREZ	1/18/2022					JOB NUMBER 17W062
CHECKED BY: J. KILBORN	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

ROBERT ALGAZI STATE OF WASHINGTON 20102852 REGISTERED PROFESSIONAL ENGINEER

SEE CT01.00

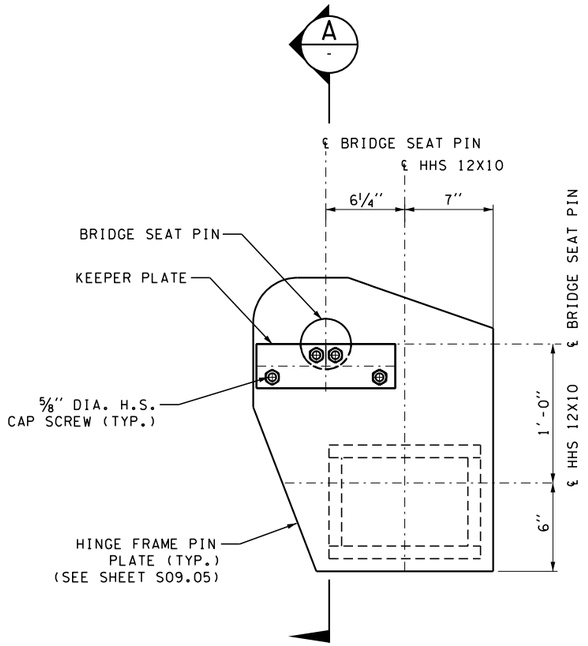
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

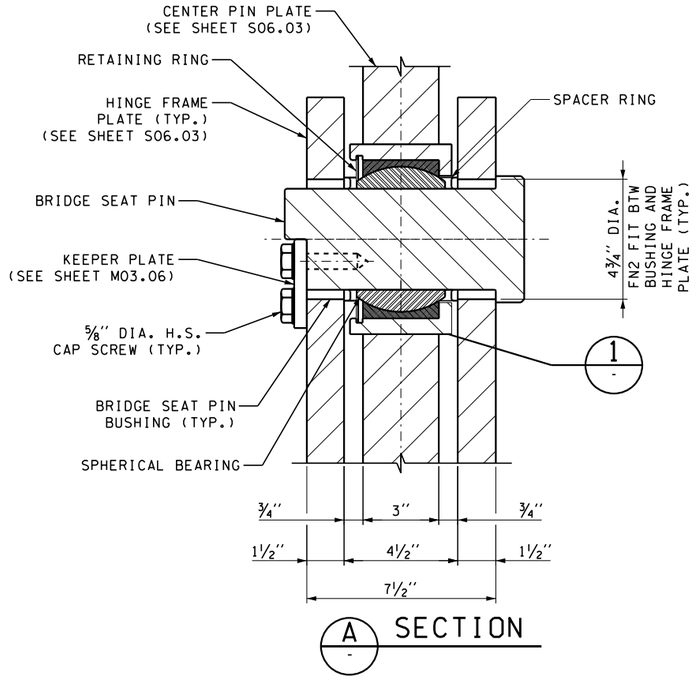
HOIST PIN ASSEMBLY DETAILS

M03.04

SHEET 93 OF 124 SHEETS



BRIDGE SEAT PIN ASSEMBLY



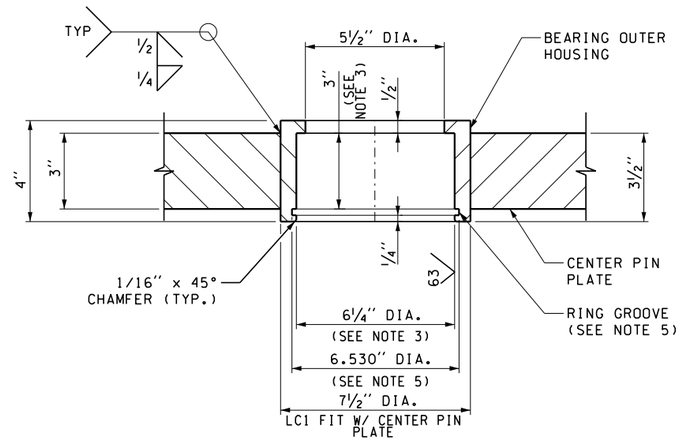


TABLE OF MATERIALS				
ITEM	QNT'Y	DESCRIPTION	MATERIAL	MANUFACTURER OR APPROVED EQUIVALENT
BRIDGE SEAT PIN	2	HARDENED TO Rc 55-60 CHROME PLATED PER FEDERAL SPECS AMS 2460. FINISHED CHROME THICKNESS TO BE 0.001-0.003. DIMENSIONS APPLY AFTER PLATING.	4140 STEEL ALLOY	-
BRIDGE SEAT PIN BUSHING	4	ALUMINUM-BRONZE	UNC 63000	-
SPACER RING	4	ALUMINUM-BRONZE	UNC 63000	-
SPHERICAL BEARING	2	LUBRON SPBZ0400-TF SPHERICAL BEARING	-	RBC
RETAINING RING	2	RRT-625 RETAINING RING	-	AMERICAN RING
KEEPER PLATE	2	-	ASTM A709 GRADE 50	-
BEARING OUTER HOUSING	2	-	ASTM A709 GRADE 50	-

NOTES:

1. WORK THIS DRAWING WITH SHEET M03.06.
2. ALL WELDING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
3. FIT AND FINISH BETWEEN BEARING OUTER HOUSING AND BEARING OUTER DIAMETER SHALL BE AS RECOMMENDED BY THE BEARING MANUFACTURER.
4. BRIDGE SEAT PIN FINISH TO MEET BEARING MANUFACTURER'S RECOMMENDED FINISH.
5. GROOVE IN BEARING OUTER HOUSING FOR RETAINING RING SHALL MEET MANUFACTURER RECOMMENDED SIZE.

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DESIGNED BY: R. ALGAZI	1/18/2022					REGION NO. 10 / STATE WASH
ENTERED BY: R. PEREZ	1/18/2022					JOB NUMBER 17W062
CHECKED BY: J. KILBORN	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

ROBERT ALGAZI — STATE OF WASHINGTON — 20102852 — REGISTERED PROFESSIONAL ENGINEER

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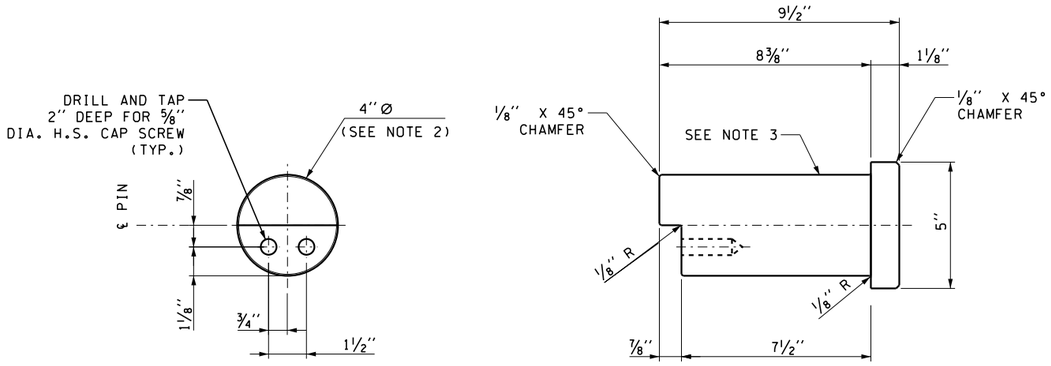
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

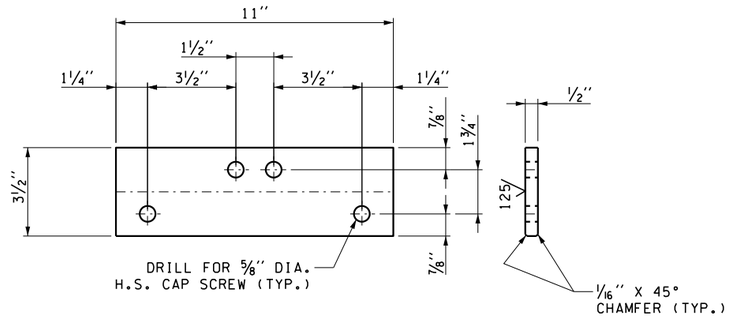
BRIDGE SEAT PIN ASSEMBLY
DETAILS 1 OF 2

M03.05

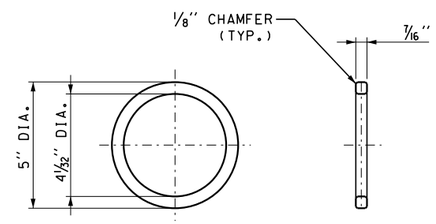
SHEET 94 OF 124 SHEETS



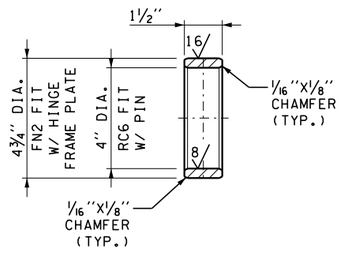
BRIDGE SEAT PIN DETAILS



KEEPER PLATE DETAILS



SPACER RING DETAILS



BUSHING DETAIL

NOTES:

1. WORK THIS DRAWING WITH SHEET M03.05.
2. FIT BETWEEN BRIDGE SEAT PIN AND SPHERICAL BEARING INNER DIAMETER SHALL BE AS RECOMMENDED BY SPHERICAL BEARING MANUFACTURER.
3. BRIDGE SEAT PIN FINISH TO MEET BEARING MANUFACTURER'S RECOMMENDED FINISH.

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DESIGNED BY: R. ALGAZI	1/18/2022					REGION NO. 10 / STATE WASH
ENTERED BY: R. PEREZ	1/18/2022					JOB NUMBER 17W062
CHECKED BY: J. KILBORN	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

ROBERT ALGAZI — STATE OF WASHINGTON — 20102852 — REGISTERED PROFESSIONAL ENGINEER

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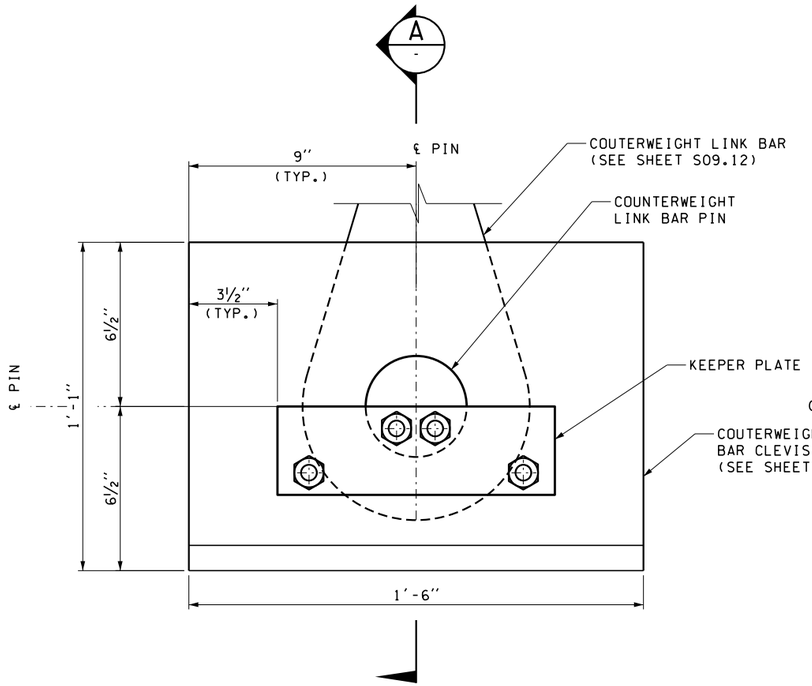
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

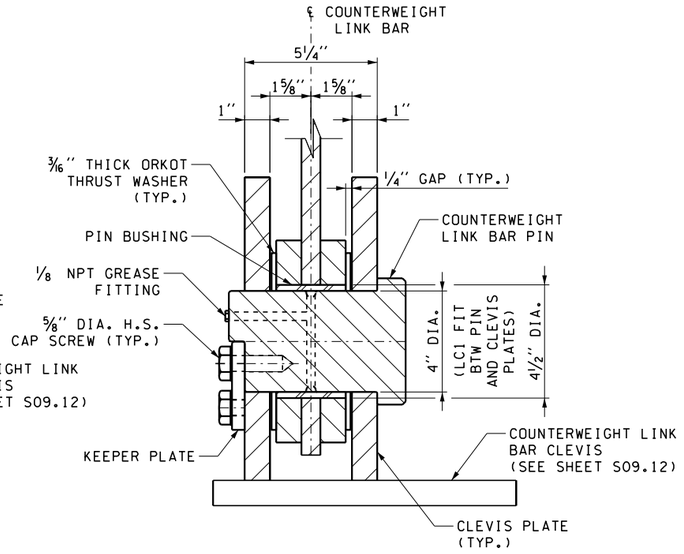
BRIDGE SEAT PIN ASSEMBLY
DETAILS 2 OF 2

M03.06

SHEET 95 OF 124 SHEETS



COUNTERWEIGHT LINK BAR PIN ASSEMBLY



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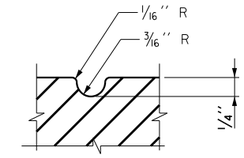
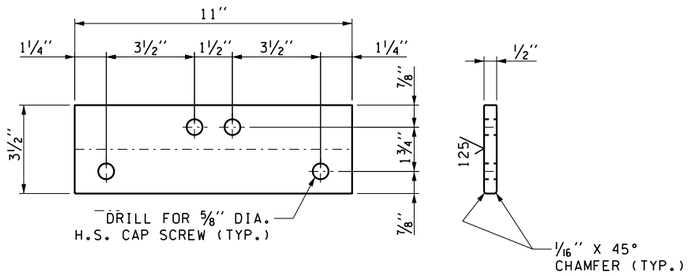
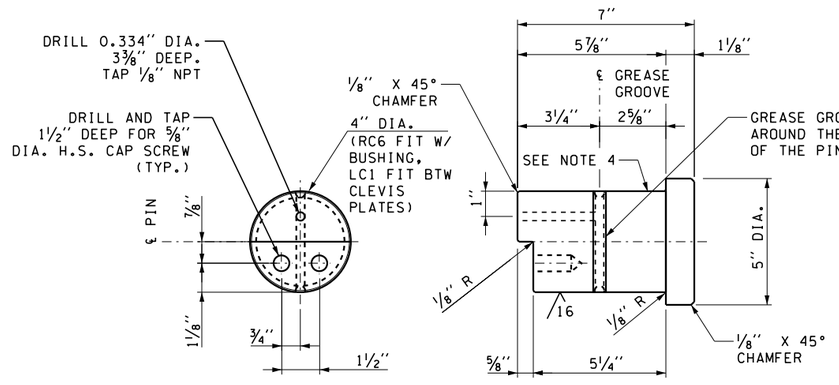


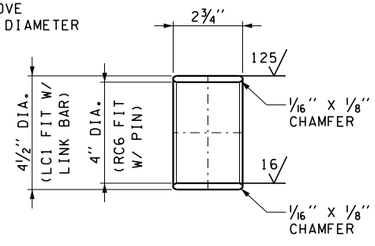
GREASE GROOVE DETAIL



KEEPER PLATE DETAILS



COUNTERWEIGHT LINK BAR PIN DETAILS



PIN BUSHING DETAIL

TABLE OF MATERIALS				
ITEM	ONT'Y	DESCRIPTION	MATERIAL	MANUFACTURER OR APPROVED EQUIVALENT
COUNTERWEIGHT PIN	2	HARDENED TO RC 55-60 CHROME PLATED PER FEDERAL SPECS AMS 2460, FINISHED CHROME THICKNESS TO BE 0.001-0.003. DIMENSIONS APPLY AFTER PLATING.	4140 STEEL ALLOY	-
PIN BUSHING	2	ALUMINUM BRONZE	UNC 63000	-
KEEPER PLATE	2	-	ASTM A709 GRADE 50	-
THRUST WASHER	4	4⅛'' I.D., 7'' O.D., 3/16'' THICKNESS	TLM THERMOSET COMPOSITE MATERIAL	ORKOT
GREASE FITTING	2	⅛ NPT GREASE FITTING	STAINLESS STEEL	-

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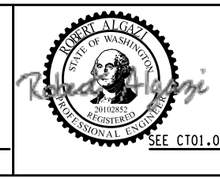
ENTERED BY: R. PEREZ	1/21/2022					10 WASH
CHECKED BY: J. KILBORN	1/21/2022					JOB NUMBER 17W062
MAR PROJ ENGR: T. CASTOR	1/21/2022					
DGN ENGR MNGR:						CONTRACT NO.
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		00****



SEE CT01.00

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP
COUNTERWEIGHT LINK BAR PIN ASSEMBLY DETAILS

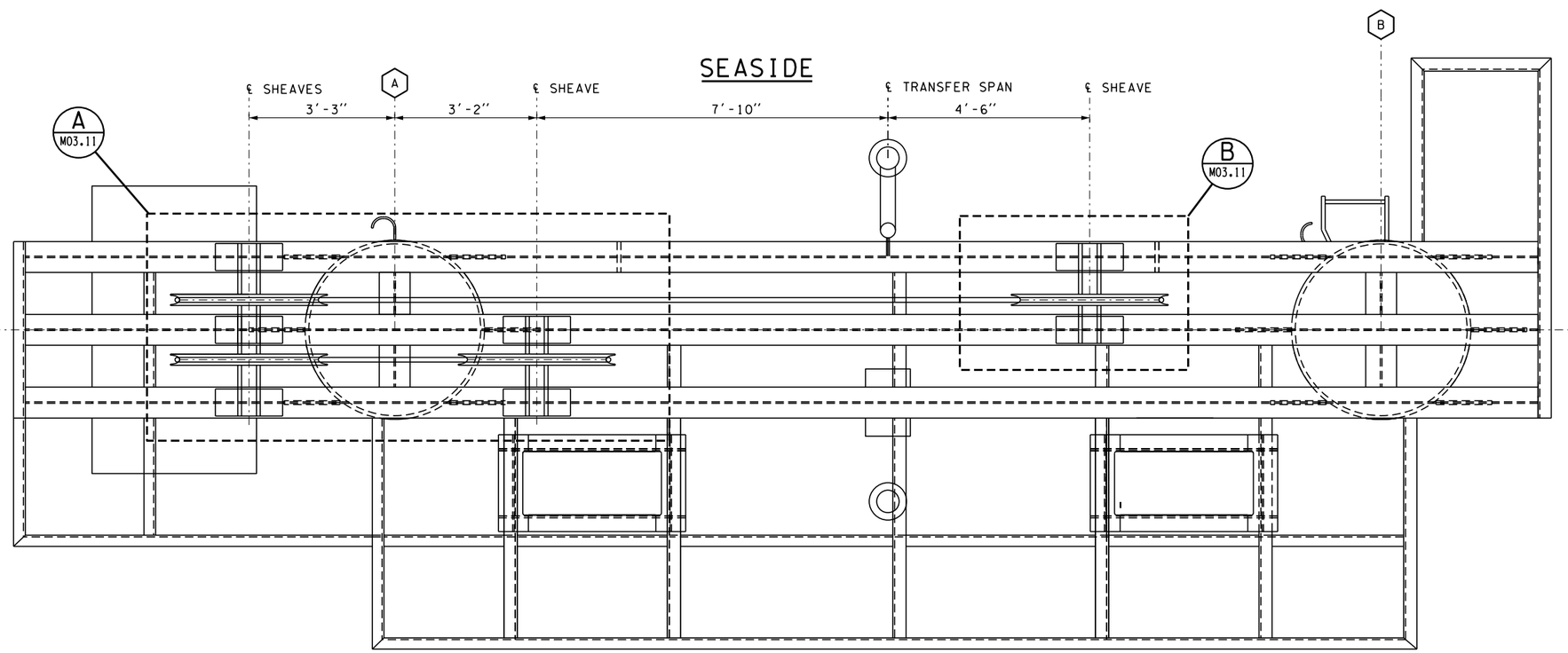
M03.07

SHEET 96 OF 124 SHEETS

MATERIALS LIST

PC#	QTY	DESCRIPTION	MATERIAL
1	4	42" NOMINAL OD SHEAVE FOR 1¼" DIA WIRE ROPE, (40" PITCH DIA) 5" BRONZE BUSHED BORE, HARDENED THROAT	CROSBY STOCK NO 4015853, OR APPROVED EQUAL
2	7	SHAFT SUPPORT	ASTM A27 GR. 70-36 FULLY ANNEALED
3	4	SPACER, CW SHAFT SHEAVE (SHORT)	ASTM A436, CLASS 2B OR ASTM A36
4	4	SPACER, CW SHAFT SHEAVE (LONG)	ASTM A436, CLASS 2B OR ASTM A36
5	1	CW SHEAVE SHAFT (LONG)	SAE 4140 Q&T
6	2	CW SHEAVE SHAFT (SHORT)	SAE 4140 Q&T
7	14	SET SCREW, ½-13 UNC x 2" LG CUP POINT, SQUARE HD	COMMERCIAL SST
8	28	HEAVY HEX STRUCTURAL BOLT, ¾-10 UNC x 2" LG	ASTM A325, TYPE I, GALV
9	28	HEAVY HEX NUT, ¾"-10 UNC	ASTM A563, GALV
10	28	FLAT WASHER ¾"	ASTM F436, GALV

SEASIDE



SHORESIDE

NOTES:

1. NOTES APPLY TO ALL M03.1X SHEETS.
2. GREASE ALL MACHINED SURFACES ON SHAFTS AND SHAFT SUPPORTS DURING ASSEMBLY.
3. GREASE SHEAVE BUSHING BEFORE AND AFTER MOUNTING ON SHAFT.
4. GREASE WIRE ROPE PRIOR TO INSTALLATION, PER SPECIAL PROVISIONS.
5. USE GREASE TYPES CALLED OUT IN SPECIAL PROVISIONS.
6. WITH SPAN IN LEVEL POSITION, ADJUST TURNBUCKLES TO LEVEL COUNTERWEIGHT PIVOT PLATE.
7. TEST AND BALANCE THE TRANSFER SPAN PER THE SPECIAL PROVISIONS.
8. INSTALL SHAFTS WITH FLATS IN THE 12 O'CLOCK POSITION TO MATCH SET SCREW LOCATION.
9. PC NUMBERS REFLECT BUBBLED NUMBERS ON M03.11.
10. SLIP CRITICAL CONNECTION, ALL SHAFT SUPPORTS. SEE SPECIAL PROVISIONS.
11. TOUCH UP PAINT EXPOSED HARDWARE AND ANY PREVIOUSLLY PAINTED SURFACES DAMAGED DURING ASSEMPMBLY IMMEDIATELY AFTER ASSEMBLY IS COMPLETED. PAINTED TO MATCH HEADFRAME AS CALLED OUT IN THE SPECIFICATIONS.
12. SHIM SHAFT SUPPORTS IF NECESSARY TO ALIGN SHEAVE SHAFTS. SEE SPECIFICATIONS.

FILE NAME: PW: WSF/Eagle Harbor/17w062SlipFtoDriveOn/PE/PE_PD/CAD/_Contract_Plans/100%17w062m03_10.dlv					
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DESIGNED BY: J. TEVES	1/18/2022				REGION NO. 10 / STATE WASH
ENTERED BY: M. MORIN	1/18/2022				JOB NUMBER 17W062
CHECKED BY: N. SANDBERG	1/18/2022				CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022				
DGN ENGR MNGR:					
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY	

JAN TEVES — STATE OF WASHINGTON — 36962 — REGISTERED PROFESSIONAL ENGINEER

SEE CT01.00

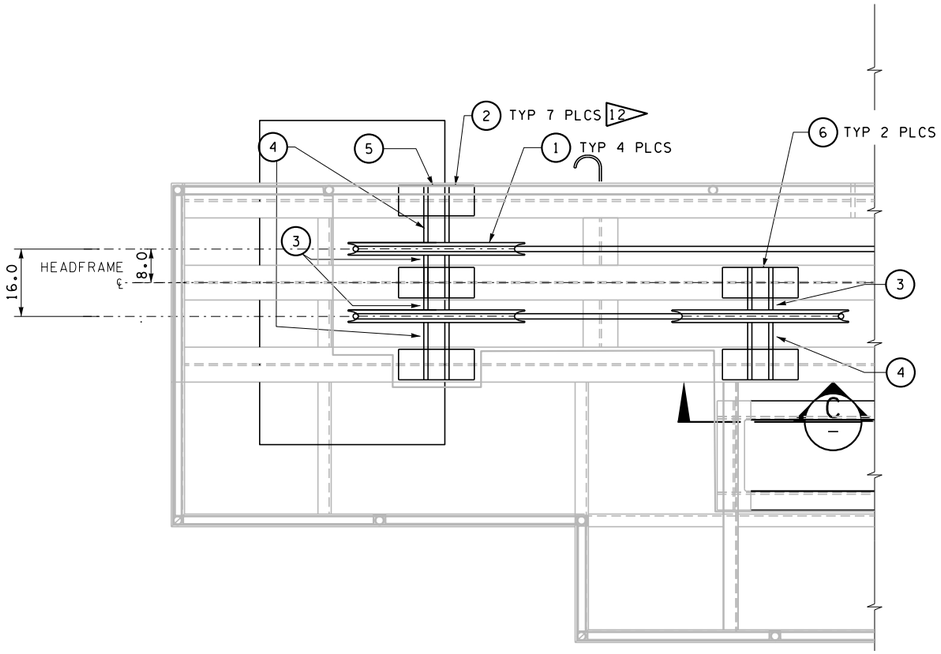
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

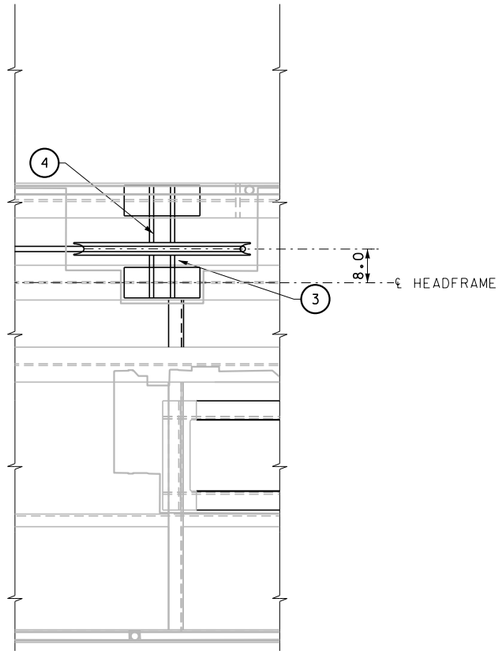
COUNTERWEIGHT SHEAVE LAYOUT

M03.10

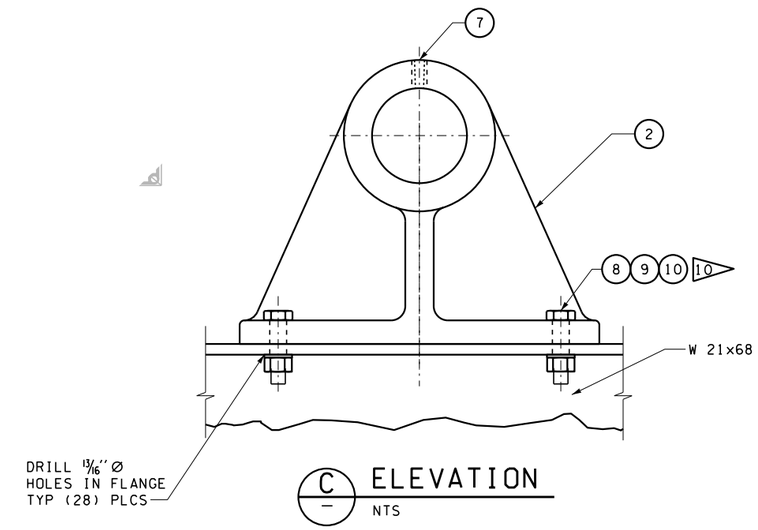
SHEET 97 OF 124 SHEETS



A M03.10 LEFT TOWER PLAN



B M03.10 RIGHT TOWER PLAN



C – ELEVATION
NTS

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SUBMITTAL DATE: 1/11/22	morin					*-WA-***	
DESIGNED BY: J. TEVES	1/18/2022					REGION NO. 10	STATE WASH
ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062	
CHECKED BY: N. SANDBERG	1/18/2022					CONTRACT NO. 00****	
MAR PROJ ENGR: T. CASTOR	1/18/2022						
DGN ENGR MNGR:							
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY			

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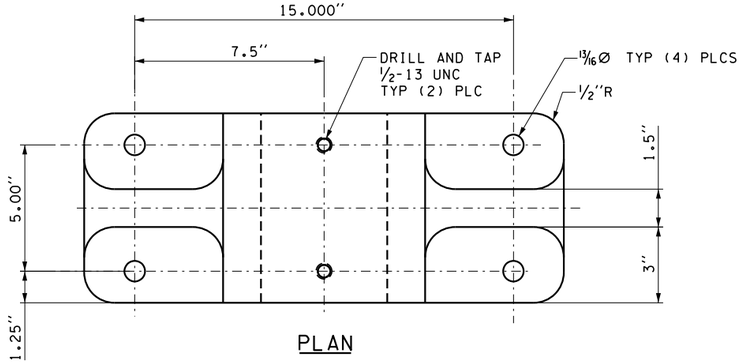
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

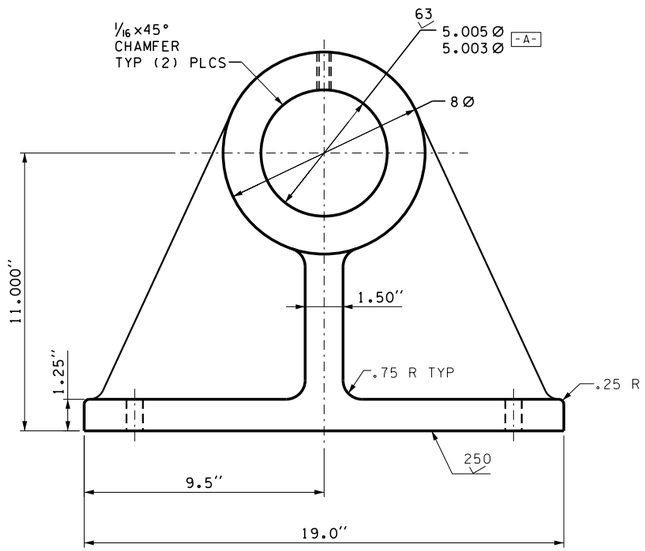
COUNTERWEIGHT SHEAVE DETAILS I

M03.11

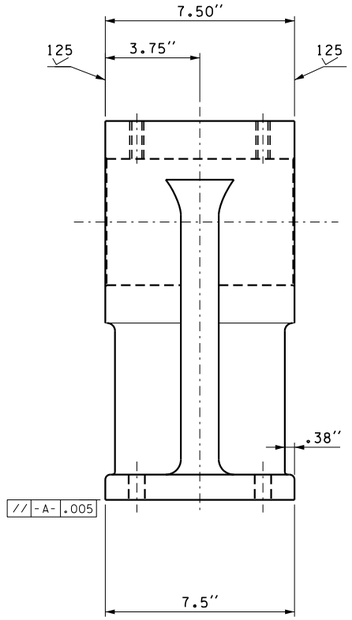
SHEET 98 OF 124 SHEETS



PLAN



ELEVATION



ELEVATION

NOTES:

1. MATERIAL: CAST STEEL ASTM A27 GRADE 70-36 FULLY ANNEALED.
2. FURNISH MATERIAL CERTIFICATION.
3. REMOVE ALL BURRS AND BREAK ALL SHARP EDGES.
4. ALL MACHINED SURFACES TO BE 125 UNLESS OTHERWISE NOTED.
5. PROTECT MACHINED BORE WITH LIGHT MACHINE OIL.
6. PAINT IN ACCORDANCE WITH SPECIFICATIONS. NO PAINT ON 5.003/5.005 BORE.
7. PRIMER ONLY ON FAYING SURFACES.
8. PERFORM MAGNETIC PARTICLE TESTING ON MACHINED BORE PER ASTM E079. PERFORM 10x VISUAL INSPECTION OF ALL SURFACES. FURNISH TEST RESULTS AND CERTIFICATIONS PRIOR TO ASSEMBLY.

UNITS:
DIMENSIONS ARE IN INCHES, UNLESS NOTED.
SURFACE FINISHES ARE IN MICROINCHES.

TOLERANCES:		
	X.X	±.06''
	X.XX	±.030''
	X.XXX	±.005''
	ANGULAR	0° 30'

PC2 - SHAFT SUPPORT

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ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062
CHECKED BY: N. SANDBERG	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JAN TEVES — STATE OF WASHINGTON — 36000 — REGISTERED PROFESSIONAL ENGINEER

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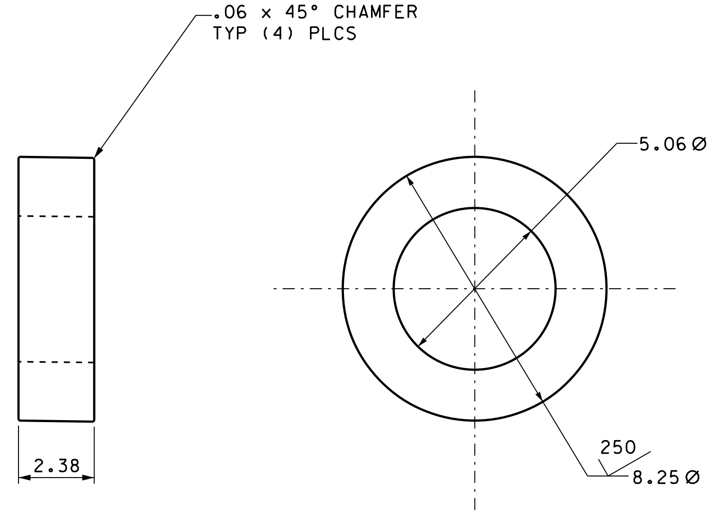
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

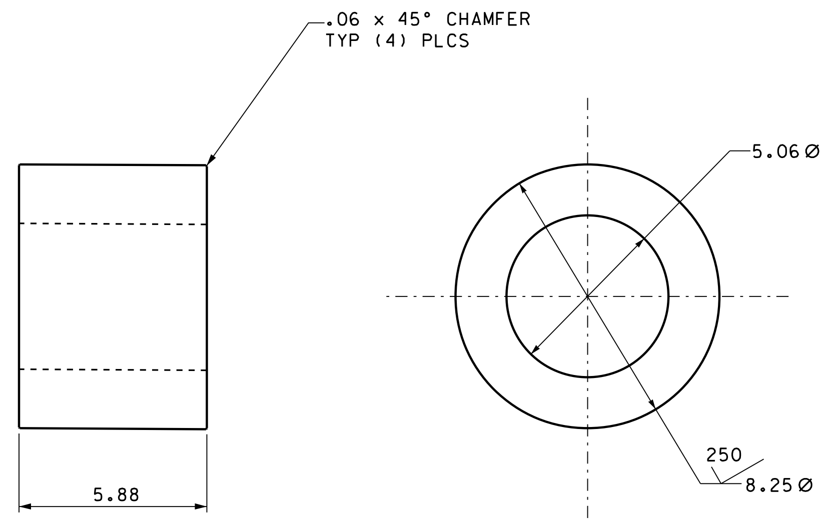
COUNTERWEIGHT SHEAVE DETAILS II

M03.12

SHEET 99 OF 124 SHEETS



PC3 - SPACER, SHAFT COUNTERWEIGHT



PC4 - SPACER, SHAFT COUNTERWEIGHT

NOTES:

1. FURNISH MATERIAL CERTIFICATION FOR ALL MATERIAL.
2. ALL MACHINED SURFACES TO BE 125 EXCEPT AS OTHERWISE NOTED.
3. REMOVE ALL BURRS AND BREAK ALL SHARP EDGES.
4. MATERIAL: ASTM 668 CLASS D STEEL
5. PREPARE, PRIME AND PAINT PER SPECIFICATIONS.

UNITS:
DIMENSIONS ARE IN INCHES, UNLESS NOTED.
SURFACE FINISHES ARE IN MICROINCHES.

TOLERANCES:		
	X.X	±.06″
	X.XX	±.030″
	X.XXX	±.005″
	ANGULAR	0° 30′

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ENTERED BY:	M. MORIN	1/18/2022				REGION NO. 10 / STATE WASH
CHECKED BY:	N. SANDBERG	1/18/2022				
MAR PROJ ENGR:	T. CASTOR	1/18/2022				JOB NUMBER 17W062
DGN ENGR MNGR:						CONTRACT NO.
ASST SECRETARY:	P. RUBSTELLO		REVISION	DATE	BY	00****

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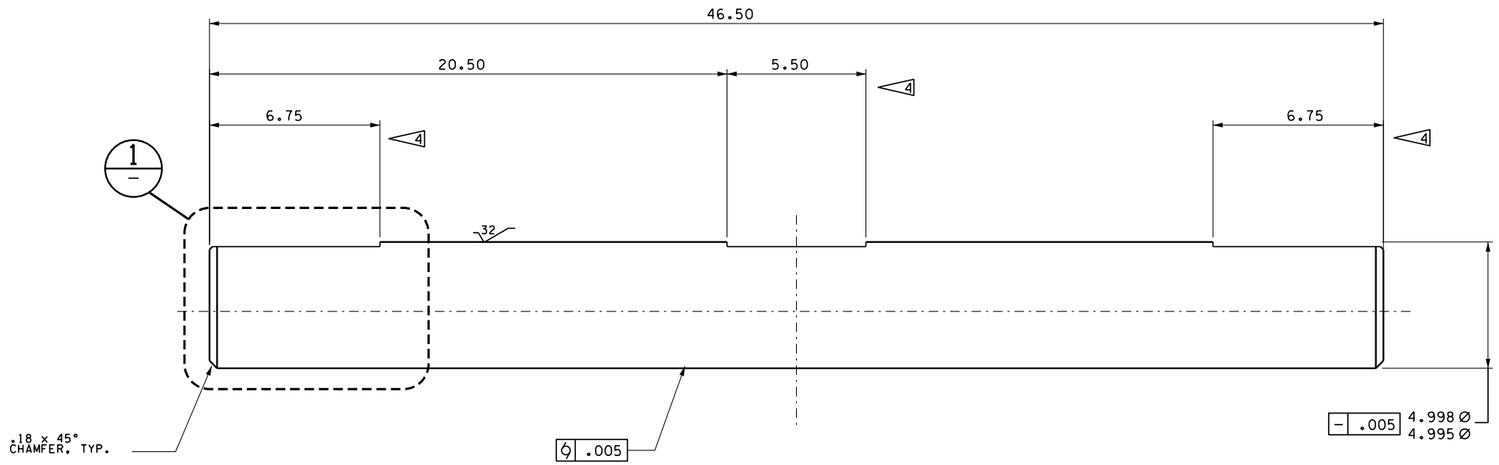
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

COUNTERWEIGHT SHEAVE DETAILS III

M03.13

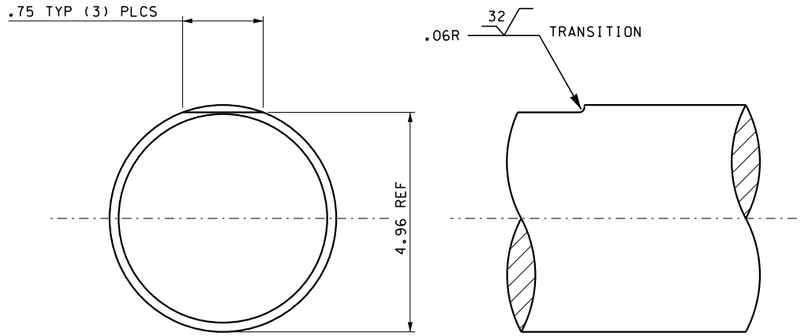
SHEET 100 OF 124 SHEETS



PC5 - SHAFT CW SHEAVE (LONG)

GENERAL NOTES

1. FURNISH MATERIAL CERTIFICATION FOR ALL MATERIAL.
2. REMOVE ALL BURRS AND BREAK ALL SHARP EDGES.
3. ALL MACHINED SURFACES TO BE 125 EXCEPT AS NOTED.
4. MILL TOP FLAT .75'' WIDE, RADIUS CORNERS .06 MIN. SEE DETAIL.
5. MATERIAL: SAE 4340 Q & T, 153 KSI ULT, 131 KSI YIELD, 330-360 BHN MIN.
6. PROTECT MACHINED SURFACES WITH LIGHT MACHINE OIL.
7. PERFORM ULTRASONIC TESTING PER SAE 2154, CLASS A ON WROUGHT MATERIAL PRIOR TO MACHINING. ALSO, PERFORM MAGNETIC PARTICLE TESTING PER ASTM E709 AFTER MACHINING. FURNISH TEST RESULTS AND CERTIFICATIONS PRIOR TO ASSEMBLY.



1 DETAIL

UNITS:
DIMENSIONS ARE IN INCHES, UNLESS NOTED.
SURFACE FINISHES ARE IN MICROINCHES.
TOLERANCES: X.X ±.06'' X.XX ±.030'' X.XXX ±.005'' ANGULAR 0° 30'

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DESIGNED BY: J. TEVES	1/18/2022					REGION NO. 10	STATE WASH
ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062	
CHECKED BY: N. SANDBERG	1/18/2022					CONTRACT NO. 00****	
MAR PROJ ENGR: T. CASTOR	1/18/2022						
DGN ENGR MNGR:							
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY			

JAN TEVES — STATE OF WASHINGTON — 56587 — REGISTERED PROFESSIONAL ENGINEER

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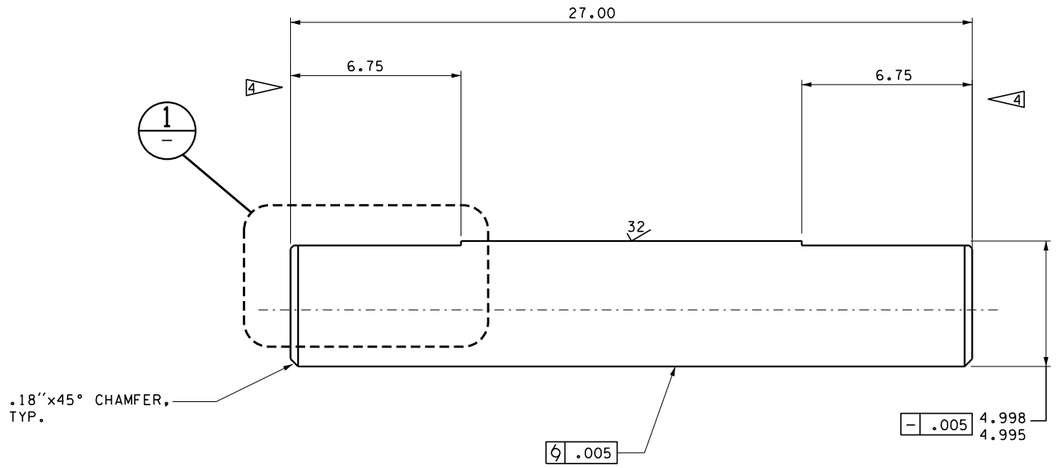
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

COUNTERWEIGHT SHEAVE DETAILS IV

M03.14

SHEET 101 OF 124 SHEETS



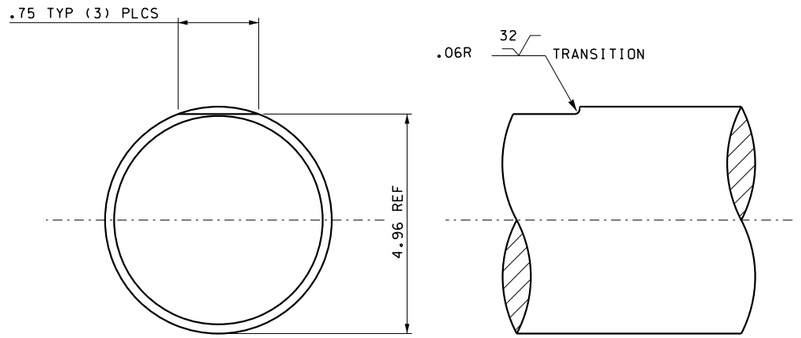
PC6 - SHAFT CW SHEAVE (SHORT)

GENERAL NOTES

1. FURNISH MATERIAL CERTIFICATION FOR ALL MATERIAL.
2. REMOVE ALL BURRS AND BREAK ALL SHARP EDGES.
3. ALL MACHINED SURFACES TO BE 125 EXCEPT AS NOTED.

4 MILL TOP FLAT .75″ WIDE, RADIUS CORNERS .06 MIN. SEE DETAIL.

5. MATERIAL: SAE 4340 Q & T, 153 KSI ULT, 131 KSI YIELD, 330-360 BHN MIN.
6. PROTECT MACHINED SURFACES WITH LIGHT MACHINE OIL.
7. PERFORM ULTRASONIC TESTING PER SAE 2154, CLASS A ON WROUGHT MATERIAL PRIOR TO MACHINING. ALSO, PERFORM MAGNETIC PARTICLE TESTING PER ASTM E709 AFTER MACHINING. FURNISH TEST RESULTS AND CERTIFICATIONS PRIOR TO ASSEMBLY.



1 DETAIL

UNITS:
DIMENSIONS ARE IN INCHES, UNLESS NOTED.
SURFACE FINISHES ARE IN MICROINCHES.
TOLERANCES: X.X ±.06″
X.XX ±.030″
X.XXX ±.005″
ANGULAR 0° 30′

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DESIGNED BY: J. TEVES	1/18/2022					REGION NO.	STATE
ENTERED BY: M. MORIN	1/18/2022					10	WASH
CHECKED BY: N. SANDBERG	1/18/2022					JOB NUMBER	
MAR PROJ ENGR: T. CASTOR	1/18/2022					17W062	
DGN ENGR MNGR:						CONTRACT NO.	
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		00****	

JAN TEVES — STATE OF WASHINGTON — 26581 — REGISTERED PROFESSIONAL ENGINEER

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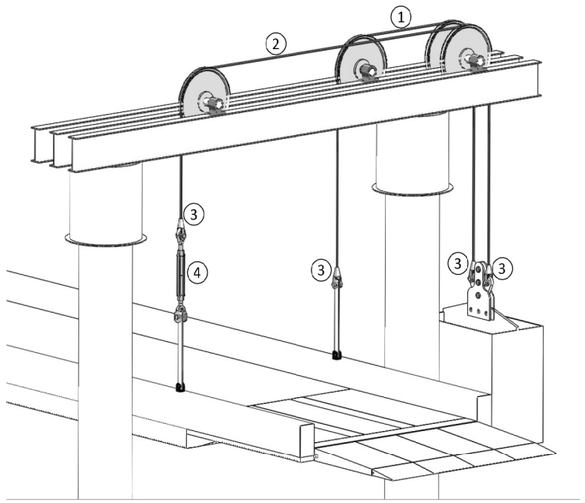
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

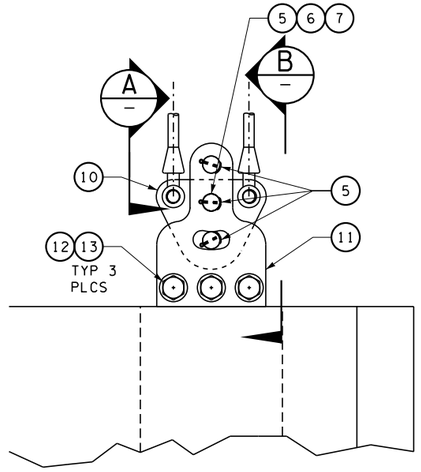
COUNTERWEIGHT SHEAVE DETAILS V

M03.15

SHEET 102 OF 124 SHEETS



ISOMETRIC FOR COUNTERWEIGHTS

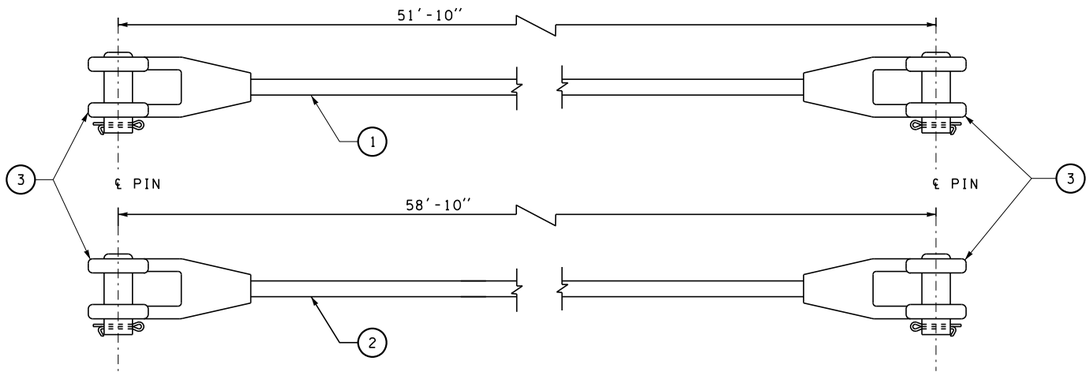


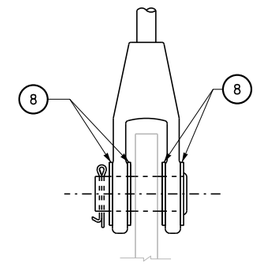
CWT CONNECTORS
ELEVATION VIEW

NOTES:

1. GREASE ALL MACHINED PINS AND HOLES BEFORE ASSEMBLY. GREASE CENTER PIN THRU GREASE FITTING AFTER ASSEMBLY. GREASE SHALL BE PREMALUBE RED #2 BY CHEMSEARCH. SEE SPECIAL PROVISIONS FOR MANUFACTURER'S CONTACT INFORMATION.
2. GREASE WIRE ROPE PER THE SPECIAL PROVISIONS.
3. WIRE ROPE LUBRICANT SHALL BE #199 SILVER STREAK WIRE ROPE LUBE. SEE SPECIAL PROVISIONS FOR MANUFACTURER'S CONTACT INFORMATION.
4. WITH TRANSFER SPAN LEVEL ADJUST TURNBUCKLES TO LEVEL COUNTERWEIGHT PIVOT PLATES, THEN TEST AND BALANCE THE TRANSFER SPAN PER THE SPECIAL PROVISIONS.
5. WSF MECHANICAL ENGINEER TO INSPECT SOCKETS BEFORE WIRE ROPE ASSEMBLIES ARE SHIPPED.
6. RECORD COUNTERWEIGHT AS-BUILT WEIGHT IN SPACE PROVIDED ON PLANS.
7. PC# REFERS TO BUBBLED NUMBER (#) ON SHEETS M03.16 AND M03.17.

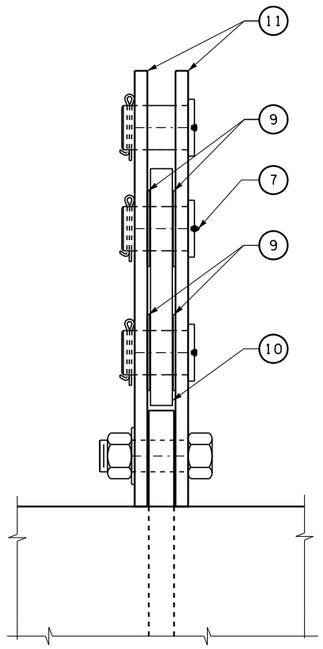
PC#	QTY	DESCRIPTION	MATERIAL
1	1	1¼" DIA. 6X37 IWRC WIRE ROPE 51'-10" LG	RIGHT REGULAR LAY, XIP, COLD DRAWN GALV, PREFORMED, MINIMUM BREAKING STRENGTH 79.9 TONS
2	1	1¼" DIA. 6X37 IWRC WIRE ROPE 58'-10" LG	RIGHT REGULAR LAY, XIP, COLD DRAWN GALV, PREFORMED, MINIMUM BREAKING STRENGTH 79.9 TONS
3	4	1¼" OPEN SPELTER SOCKET, CROSBY G-416 #1039771	HOT DIP GALV STL, RR-S-550D, TYPE A
4	1	2½" x 24" TURNBUCKLE CROSBY HG-227 JAW & EYE, #1032457	HOT DIP GALV, ASTM F-1145, FED. SPEC. FF-T-791B TYPE 1, FORM 1, CLASS 8
5	3	COUNTERWEIGHT PINS	SEE DETAIL (5) SHEET M03.17
6	3	.375Ø x 4.5 LG COTTER PIN	STAINLESS STEEL COMMERCIAL GRADE
7	1	⅛ NPT GREASE FITTING	STAINLESS STEEL COMMERCIAL GRADE
8	8	2¾" PLAIN WASHER	HOT DIP GALV, ANSI B18.22.1 TYPE A
9	4	ORKOT THRUST WASHER	ORKOT TLM-S THERMOSET COMPOSITE BEARING MATERIAL, 3.6" ID, 6" OD, .18" THICK
10	1	COUNTERWEIGHT PIVOT PLATE	SEE DETAIL (10) SHEET M03.17
11	2	COUNTERWEIGHT CONNECTION PLATE	SEE DETAIL (11) SHEET M03.17
12	3	2½"Ø HEXHEAD NUT & BOLT	GALV A446
13	3	2½"Ø WASHERS	HOT DIP GALV STL





A VIEW, TYP

SCALE 1" = 1'-0"



B VIEW, TYP
WIRE ROPE ASSEMBLIES
NOT SHOWN FOR CLARITY.

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ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062
CHECKED BY: N. SANDBERG	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
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JAN TEVES — STATE OF WASHINGTON — 54062 — REGISTERED PROFESSIONAL ENGINEER

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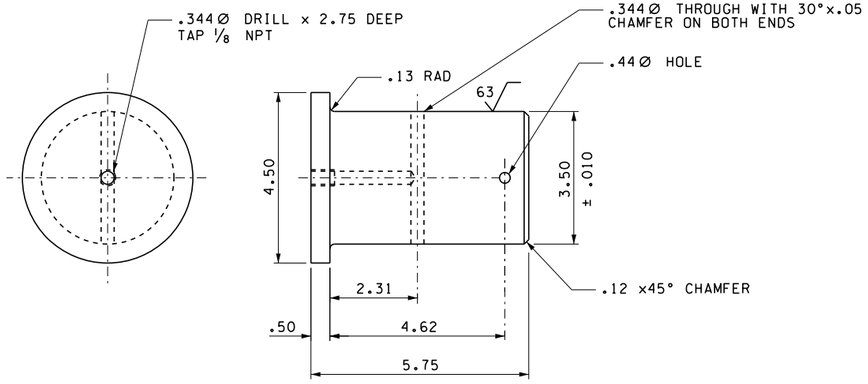
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

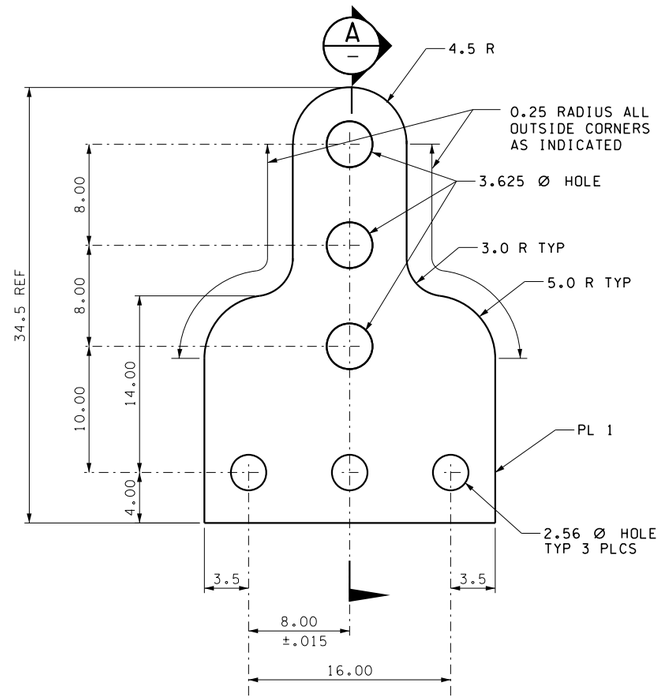
1¼" COUNTERWEIGHT WIRE ROPE ASSEMBLIES

M03.16

SHEET 103 OF 124 SHEETS



5 DETAIL - COUNTERWEIGHT PIN



11 COUNTERWEIGHT CONNECTION PLATE

PC 5 NOTES:

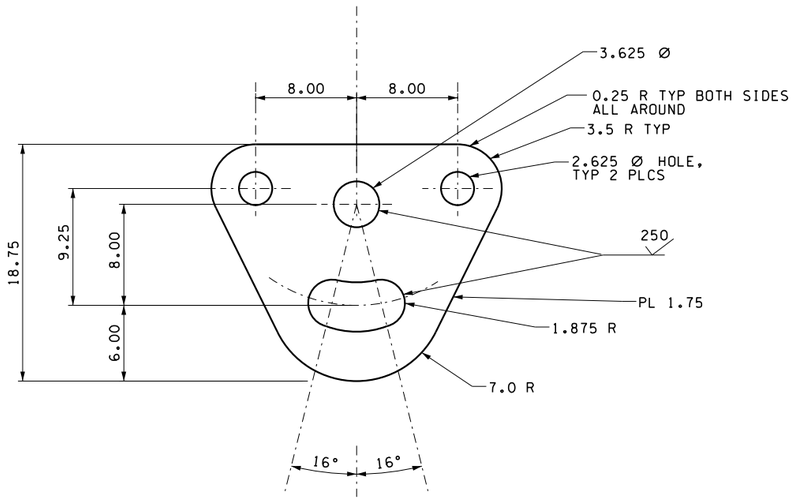
1. FURNISH MATERIAL CERTIFICATION.
2. REMOVE ALL BURRS AND BREAK ALL SHARP EDGES.
3. ALL MACHINED SURFACES TO BE 125 $\sqrt{}$.
4. MATERIAL: SAE 4140 STEEL, HEAT TREATED, QUENCHED, TEMPERED AND STRESS RELIEVED, 269 TO 321 BHN.
   Fu = 125 KSI
   Fy = 100 KSI
5. PAINT WITH MARINE GRADE 2-PART EPOXY PAINT. COLOR SHALL BE BLACK.

PC 10 NOTES:

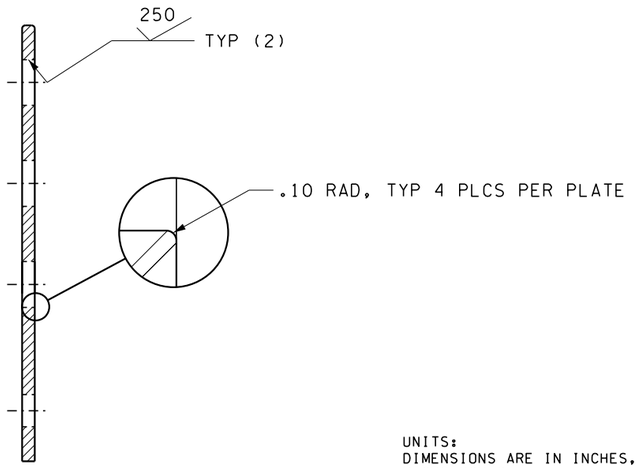
1. MATERIAL ASTM A709 GRADE 50 Fy= 50 KSI.
2. BREAK EDGES AND SHARP CORNERS 1/16R MINIMUM, EXCEPT AS NOTED.
3. HOT DIP GALVANIZE AFTER FABRICATION.
4. FURNISH MATERIALS CERTIFICATION FOR ALL MATERIALS.

PC 11 NOTES:

1. TOP 3.625 Ø HOLE IS HOLDING SPOT FOR THE MOVING OF COUNTERWEIGHTS WITH A LIFTING DEVICE.
2. MATERIAL: ASTM A709 GRADE 50, Fy = 50 KSI.
3. BREAK ALL EDGES 0.06 R MINIMUM EXCEPT AS NOTED.
4. HOT DIP GALVANIZE AFTER FABRICATION.
5. FURNISH MATERIALS CERTIFICATION FOR ALL MATERIALS.



10 DETAIL COUNTERWEIGHT PIVOT PLATE



A SECTION

UNITS:
DIMENSIONS ARE IN INCHES, UNLESS NOTED. SURFACE FINISHES ARE IN MICROINCHES.
TOLERANCES:

X.X	±.06"
X.XX	±.030"
X.XXX	±.005"
ANGULAR	0°30'

FILE NAME: PW: WSF/Eagle Harbor/17w062SlipFtoDriveOn/PE/PE_PD/CAD/_Contract_Plans/100%17w062m03_17.dlv						
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ENTERED BY: M. MORIN	1/18/2022					10 WASH
CHECKED BY: N. SANDBERG	1/18/2022					JOB NUMBER 17W062
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						CONTRACT NO. 00****
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JAN TEVES — STATE OF WASHINGTON — 36580 — REGISTERED PROFESSIONAL ENGINEER

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WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

COUNTERWEIGHT PIVOT PLATE

M03.17

SHEET 104 OF 124 SHEETS

ELECTRICAL SHEET INDEX

E01.00	ELECTRICAL SHEET INDEX, SITE PLAN, SYMBOLS, AND ABBREVIATIONS
E03.00	SLIP F ELECTRICAL SITE PLAN
E03.01	SLIP F ELECTRICAL ELEVATION
E03.02	HEADFRAME ELECTRICAL PLAN
E05.00	ONE-LINE DIAGRAM
E05.01	ELECTRICAL DETAILS I
E05.02	ELECTRICAL DETAILS II
E06.01	ELECTRICAL SCHEDULES I
E06.02	ELECTRICAL SCHEDULES II
EC7.00	MECHANICAL HOIST ELECTRICAL PLAN
EC7.01	TRANSFER SPAN ELECTRICAL ELEV.
EC17.01	HOIST CONTROL SCHEMATIC DIAGRAM
EM01.00	SB426 FEEDER REPAIR SITE PLAN
EM01.01	SB426 FEEDER REPAIR ONE-LINE DIAGRAM
EM01.02	SB426 RACEWAY SCHEDULE AND CONSTRUCTION NOTES
EM01.03	SB426 FEEDER REPAIR SITE PLAN DETAIL 1
EM01.04	SB426 FEEDER REPAIR SITE PLAN DETAIL 2
EM01.05	SB426 FEEDER REPAIR DETAILS 1
EM01.06	SB426 FEEDER REPAIR DETAILS 2
EM01.07	SB426 FEEDER REPAIR ELEVATION 1
EM01.08	SB426 FEEDER REPAIR ELEVATION 2

ELECTRICAL SYMBOLS

- POLE MOUNTED LUMINAIRE
- SURFACE MOUNTED LUMINAIRE
- PANELBOARD, 208 OR 240V
- PANELBOARD, 480V
- (X) CONSTRUCTION NOTE
- (112) WIRE NOTE
- HEAVY LINES INDICATE NEW CONDUIT
- LIGHT LINES INDICATE EXISTING CONDUIT
- DUPLEX RECEPTACLE, GROUND FAULT TYPE
- 4 PLEX RECEPTACLE
- RECEPTACLE, SPECIAL TYPE AS INDICATED
- ELECTRICAL CONNECTION
- (PE) PHOTOCELL

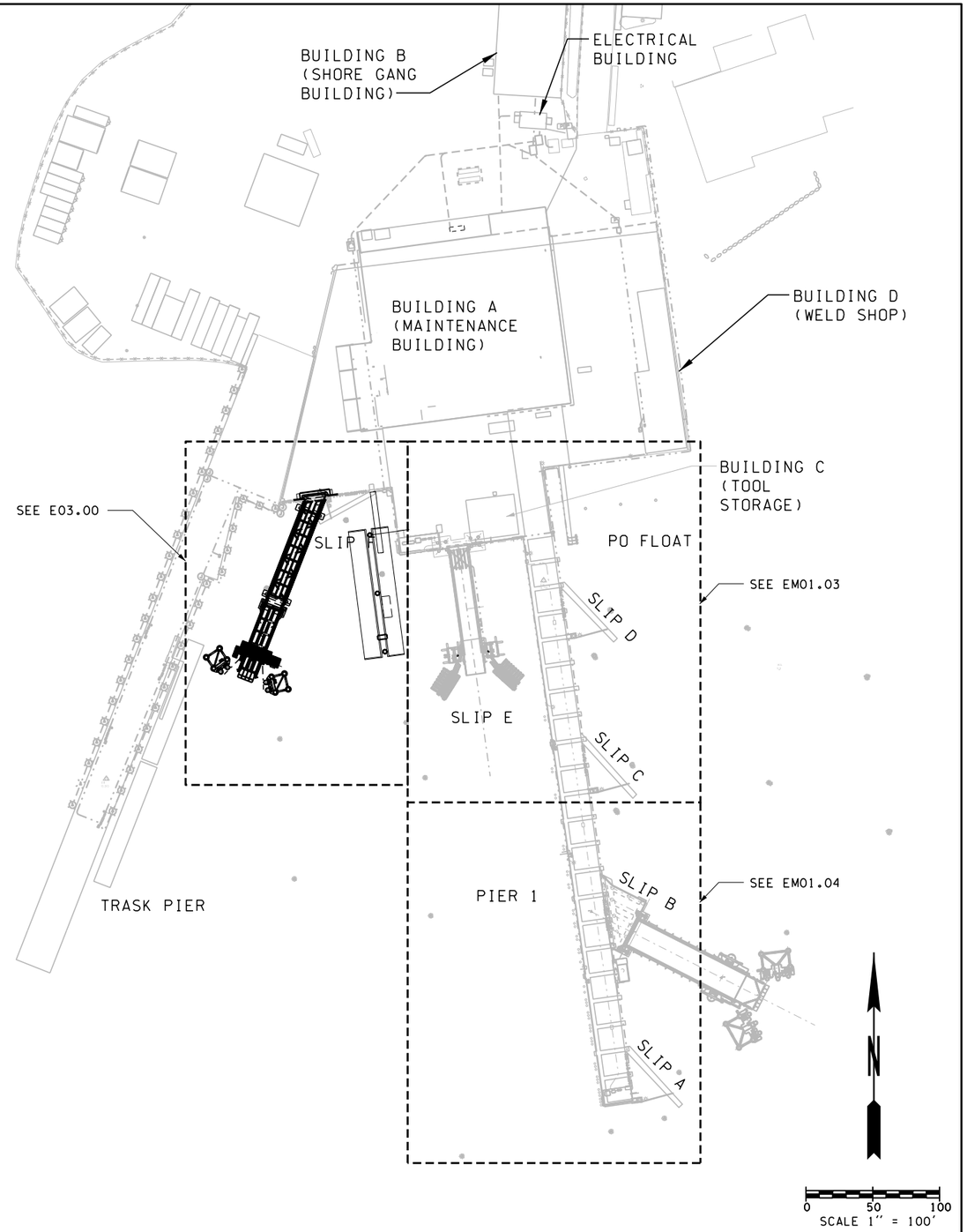
X / SXX.XX — CROSS-SECTION CALLOUT

X / XXX.XX — SECTION — SECTION OR ELEVATION TITLE LABLE

X / SXX.XX — DETAIL REFERENCE

ABBREVIATIONS

A, AMP	AMPERE
AC	ALTERNATING CIRCUIT
C	CONDUIT
CKT	CIRCUIT
CU	COPPER
EX.	EXISTING
G, GND	GROUND
GFI	GROUND FAULT INTERRUPTER
HH	HANDHOLE
I.E.	FOR EXAMPLE OR IN OTHER WORDS
KVA	KILOVOLTAGE-AMPERE
KW	KILOWATT
LTG	LIGHTING
LCP	LIGHTING CONTROL PANEL
MC	METAL CLAD
MIN.	MINIMUM
P	POLE
PH	PHASE
REC	RECEPTACLE
RGS	RIGID GALVANIZED STEEL
RGSP	RIGID GALVANIZED STEEL PVC CONDUIT COATED CONDUIT
UON	UNLESS OTHERWISE NOTED
W/	WITH
WP	WEATHERPROOF
Z	IMPEDANCE



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ENTERED BY: M. MORIN	1/21/2022				REGION NO. 10 / STATE WASH	
CHECKED BY:	1/21/2022				JOB NUMBER 17W062	
MAR PROJ ENGR: T. CASTOR	1/21/2022				CONTRACT NO. 00****	
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

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Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

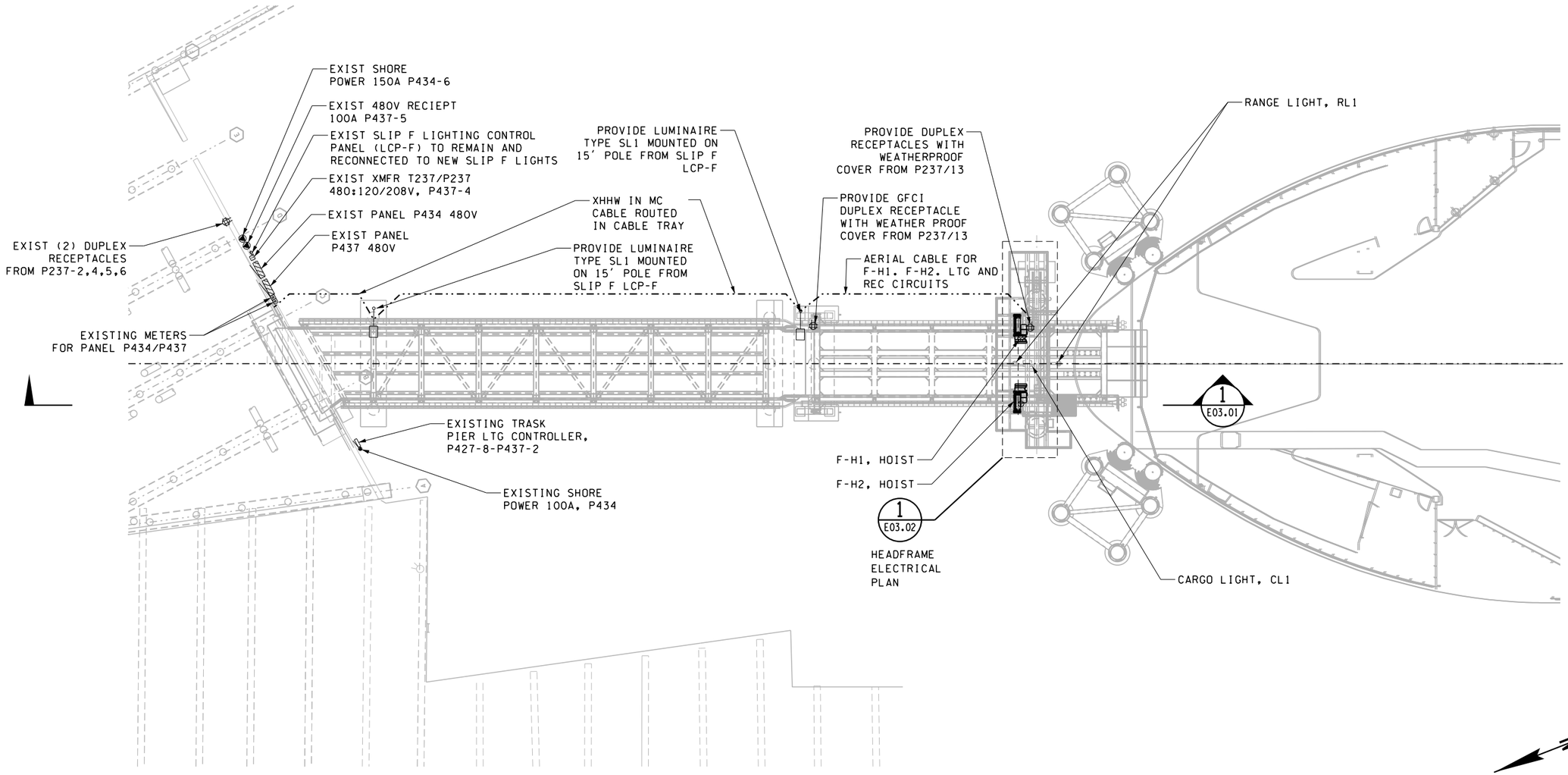
ELECTRICAL SHEET INDEX, SITE PLAN SYMBOLS AND ABBREVIATIONS

E01.00

SHEET 105 OF 124 SHEETS

GENERAL NOTES

1. ALL CONDUIT SHALL BE PVC-COATED, RIGID GALVANIZED STEEL, UNLESS OTHERWISE NOTED.
2. FOR ADDITIONAL EQUIPMENT AND LIGHTING INFORMATION REFER TO E6.01 FOR EQUIPMENT CONNECTION AND WIRING SCHEDULE AND LIGHTING LUMINAIRE SCHEDULE.
3. REFER TO E6.01 AND E6.02 FOR PANELBOARD SCHEDULES.
4. REFER TO E05.01 FOR DETAILS AND SLIP F LIGHTING DIAGRAM.
5. ALL JUNCTION BOXES TO BE 316 STAINLESS STEEL, NEMA 4X TYPE WITH HINGED COVER AND PAD-LOCKABLE.
6. NO SPLICES ON CABLE TRAY. SPLICES ONLY IN JUNCTION BOXES.
7. PROVIDE LIQUID-TIGHT, FLEXIBLE METALLIC CONDUIT FOR ALL CONDUIT RUNS AT TRANSITION FROM YARD PIER TO TRANSFER SPAN.



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ENTERED BY: R. PEREZ	1/21/2022					JOB NUMBER 17W062
CHECKED BY: J. LEYSATH	1/21/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/21/2022					
DGN ENGR MNGR:						
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NORMAN P. LEKHAKUL STATE OF WASHINGTON 39959 REGISTERED PROFESSIONAL ENGINEER

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EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

SLIP F ELECTRICAL SITE PLAN

E03.00

SHEET 106 OF 124 SHEETS

NOTES:

1. ALL CONDUIT SHALL BE PVC-COATED, RIGID GALVANIZED STEEL, UNLESS OTHERWISE NOTED.

2. FOR ADDITIONAL EQUIPMENT AND LIGHTING INFORMATION REFER TO E6.01 FOR EQUIPMENT CONNECTION AND WIRING SCHEDULE AND LIGHTING LUMINAIRE SCHEDULE.

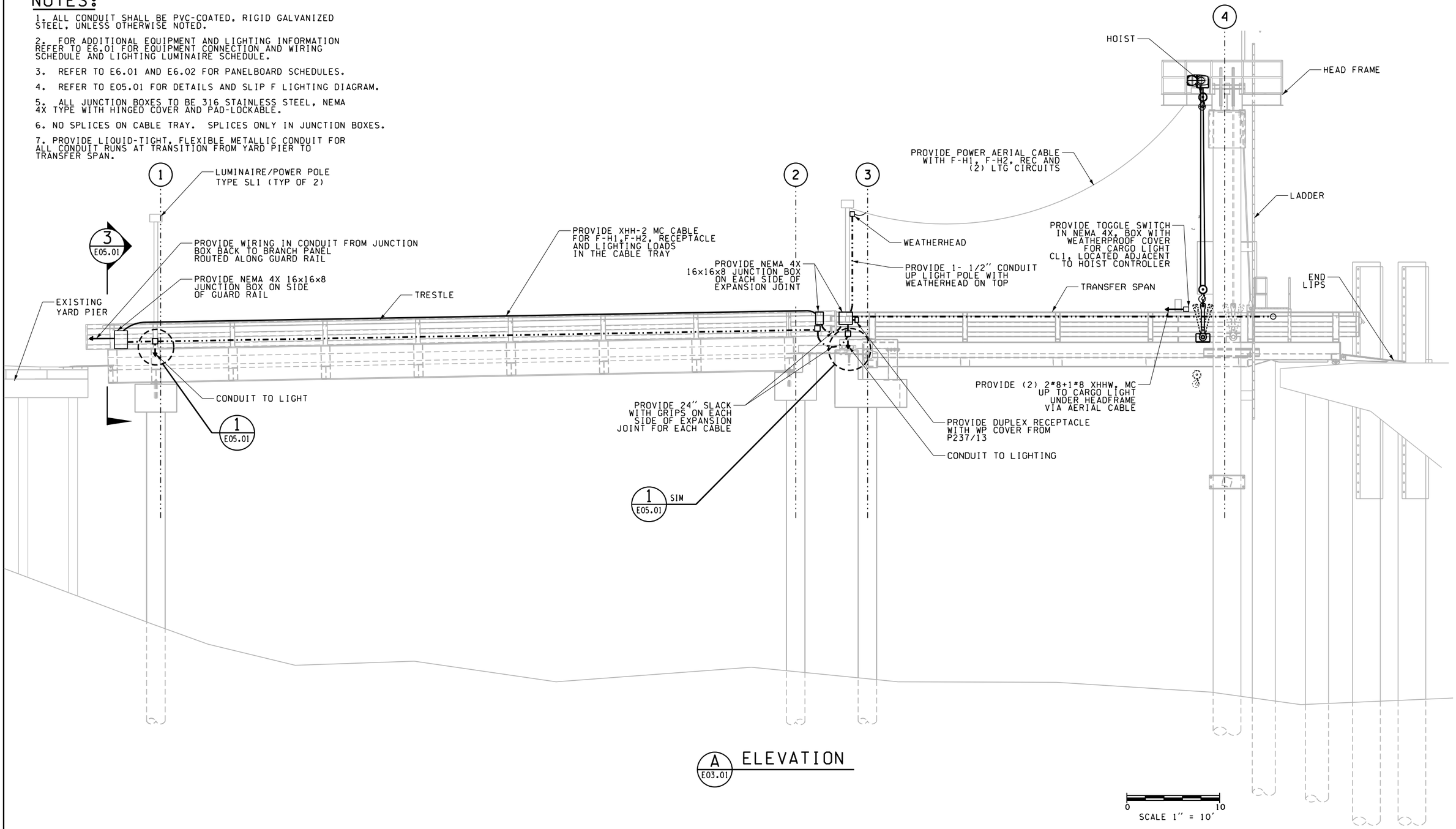
3. REFER TO E6.01 AND E6.02 FOR PANELBOARD SCHEDULES.

4. REFER TO E05.01 FOR DETAILS AND SLIP F LIGHTING DIAGRAM.

5. ALL JUNCTION BOXES TO BE 316 STAINLESS STEEL, NEMA 4X TYPE WITH HINGED COVER AND PAD-LOCKABLE.

6. NO SPLICES ON CABLE TRAY. SPLICES ONLY IN JUNCTION BOXES.

7. PROVIDE LIQUID-TIGHT, FLEXIBLE METALLIC CONDUIT FOR ALL CONDUIT RUNS AT TRANSITION FROM YARD PIER TO TRANSFER SPAN.



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ENTERED BY:	1/21/2022					JOB NUMBER 17W062
CHECKED BY:	1/21/2022					CONTRACT NO. 00****
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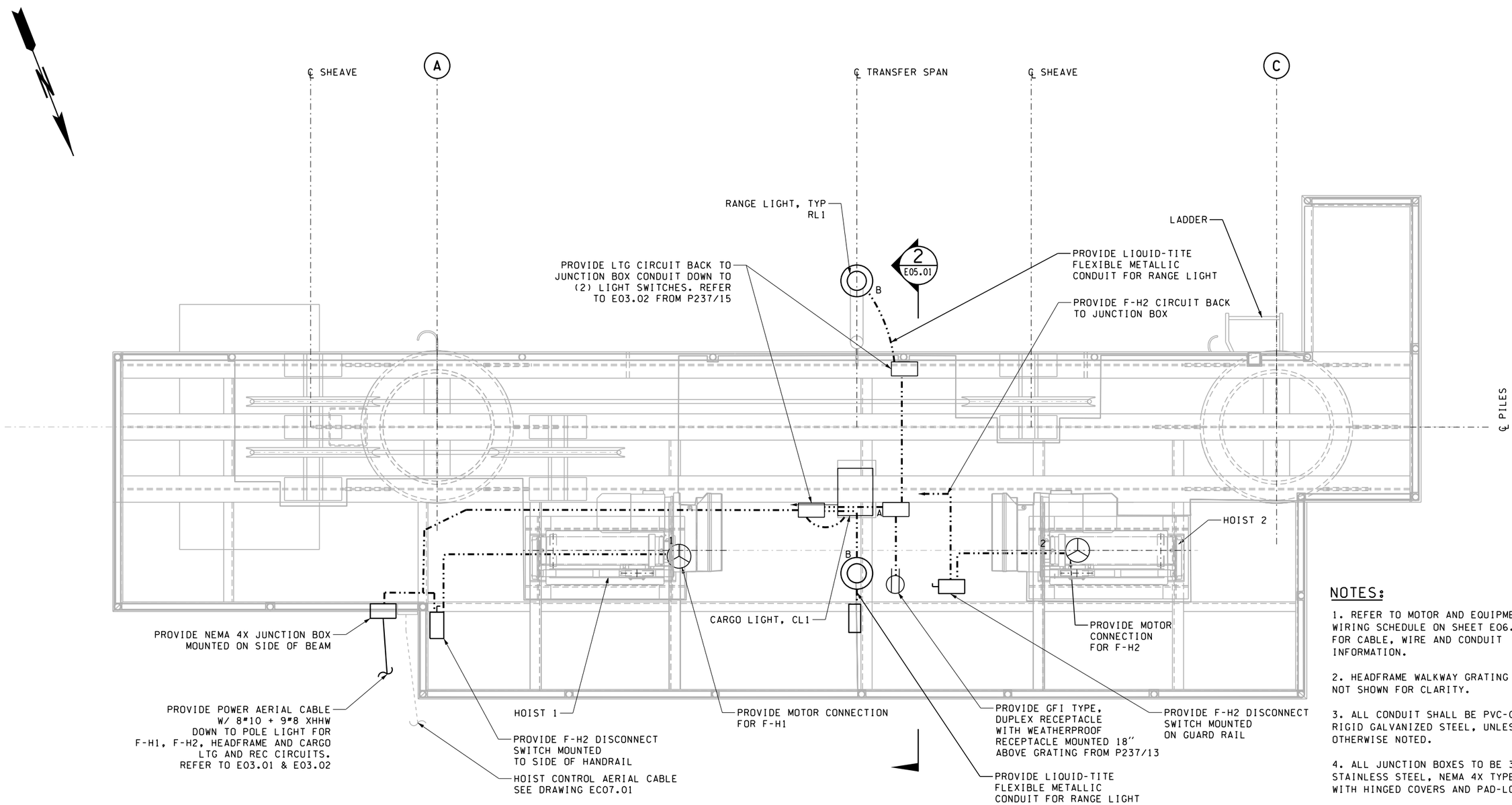
SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

SLIP F ELECTRICAL ELEVATION

E03.01

SHEET 107 OF 124 SHEETS



PLAN - HEADFRAME

NOTES:

1. REFER TO MOTOR AND EQUIPMENT WIRING SCHEDULE ON SHEET E06.01 FOR CABLE, WIRE AND CONDUIT INFORMATION.
2. HEADFRAME WALKWAY GRATING NOT SHOWN FOR CLARITY.
3. ALL CONDUIT SHALL BE PVC-COATED RIGID GALVANIZED STEEL, UNLESS OTHERWISE NOTED.
4. ALL JUNCTION BOXES TO BE 316 STAINLESS STEEL, NEMA 4X TYPE WITH HINGED COVERS AND PAD-LOCKABLE.
5. PROVIDE NAMEPLATE ON ALL EQUIPMENT AND CIRCUIT LABELS ON ALL DEVICES. REFER TO E05.02 FOR ADDITIONAL INFO.
6. REFER TO E05.01 FOR ADDITIONAL DETAILS AND SLIP F LIGHTING DIAGRAM.

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DESIGNED BY: P. LEKHAKUL	1/21/2022				REGION NO. 10 / STATE WASH
ENTERED BY: R. PEREZ	1/21/2022				
CHECKED BY: J. LEYSATH	1/21/2022				JOB NUMBER 17W062
MAR PROJ ENGR: T. CASTOR	1/21/2022				
DGN ENGR MNGR:					CONTRACT NO. 00****
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SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

HEADFRAME ELECTRICAL PLAN

E03.02

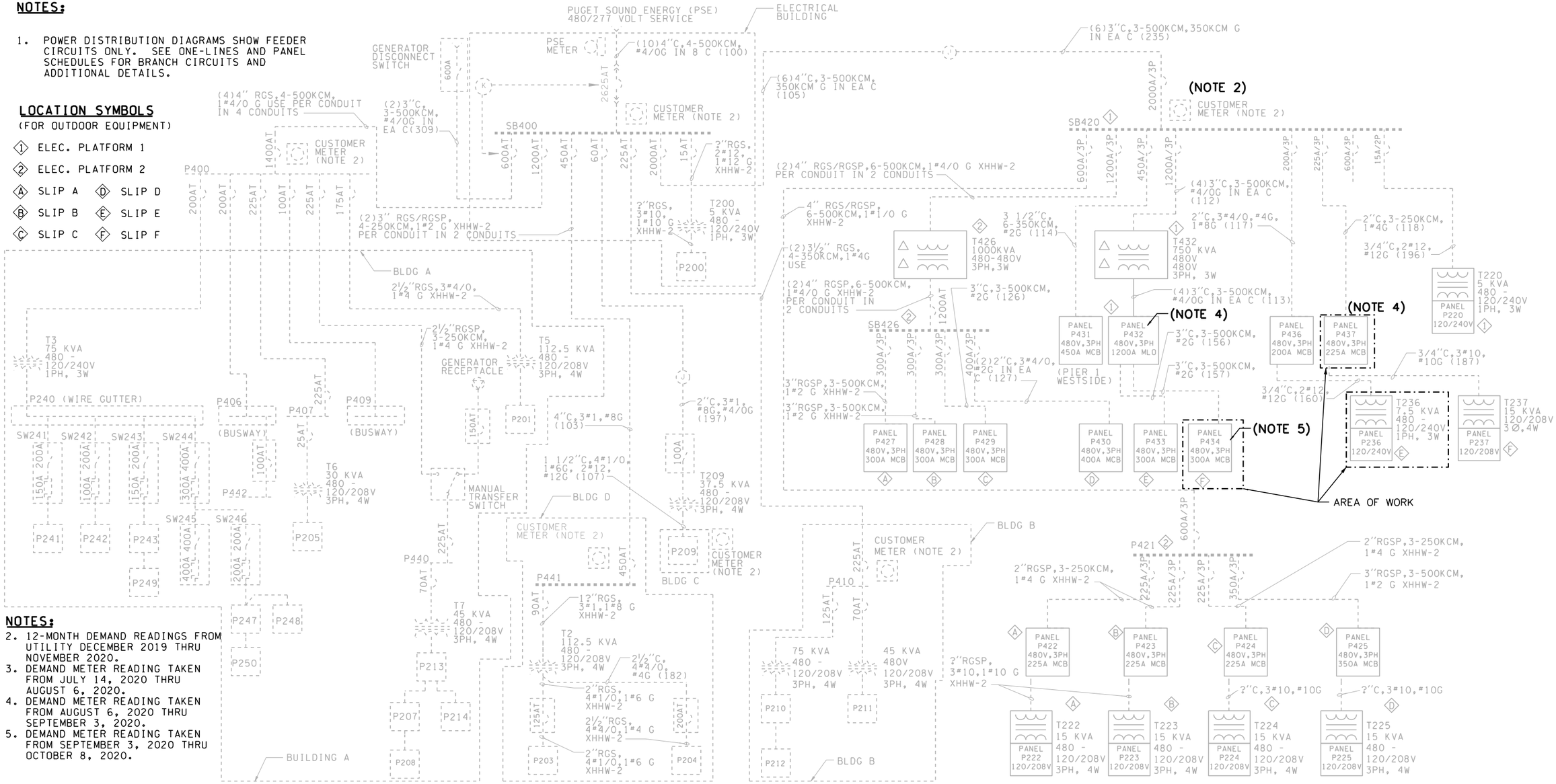
SHEET 108 OF 124 SHEETS

NOTES:

1. POWER DISTRIBUTION DIAGRAMS SHOW FEEDER CIRCUITS ONLY. SEE ONE-LINES AND PANEL SCHEDULES FOR BRANCH CIRCUITS AND ADDITIONAL DETAILS.

LOCATION SYMBOLS
(FOR OUTDOOR EQUIPMENT)

- ① ELEC. PLATFORM 1
- ② ELEC. PLATFORM 2
- Ⓐ SLIP A Ⓓ SLIP D
- Ⓑ SLIP B Ⓔ SLIP E
- Ⓒ SLIP C Ⓕ SLIP F



NOTES:

2. 12-MONTH DEMAND READINGS FROM UTILITY DECEMBER 2019 THRU NOVEMBER 2020.
3. DEMAND METER READING TAKEN FROM JULY 14, 2020 THRU AUGUST 6, 2020.
4. DEMAND METER READING TAKEN FROM AUGUST 6, 2020 THRU SEPTEMBER 3, 2020.
5. DEMAND METER READING TAKEN FROM SEPTEMBER 3, 2020 THRU OCTOBER 8, 2020.

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ENTERED BY:	1/21/2022				JOB NUMBER 17W062
CHECKED BY:	1/21/2022				CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/21/2022				
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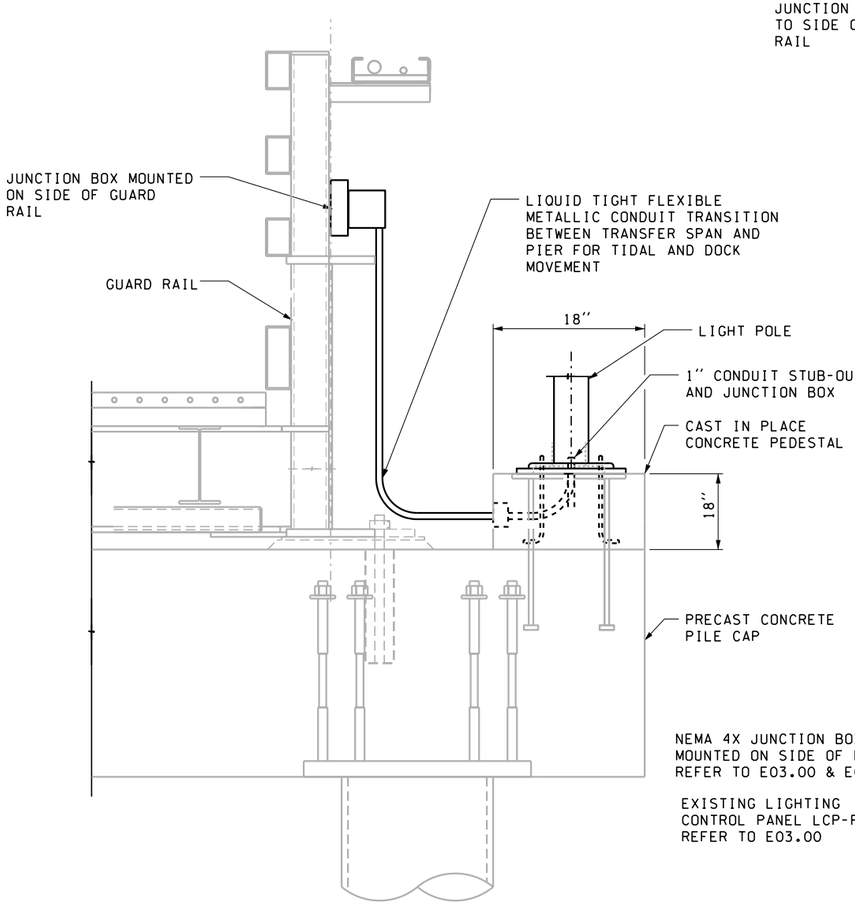
SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

ONE LINE DIAGRAM

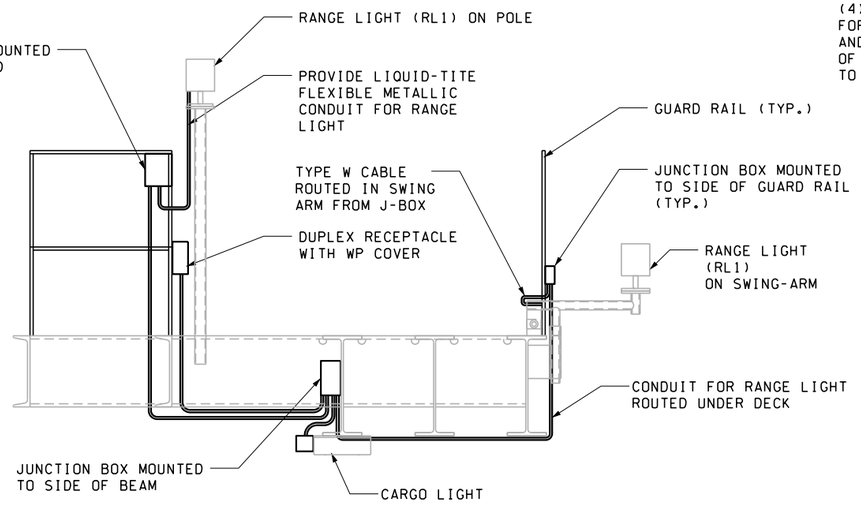
E05.00

SHEET 109 OF 124 SHEETS



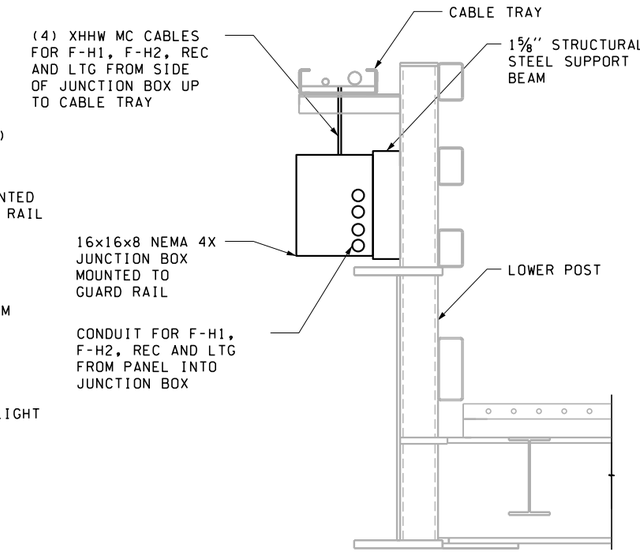
NOTE:
FOR STRUCTURAL INFO, REFER TO DETAILS ON SHEETS S05.03 & S05.20

1 E03.01 DETAIL



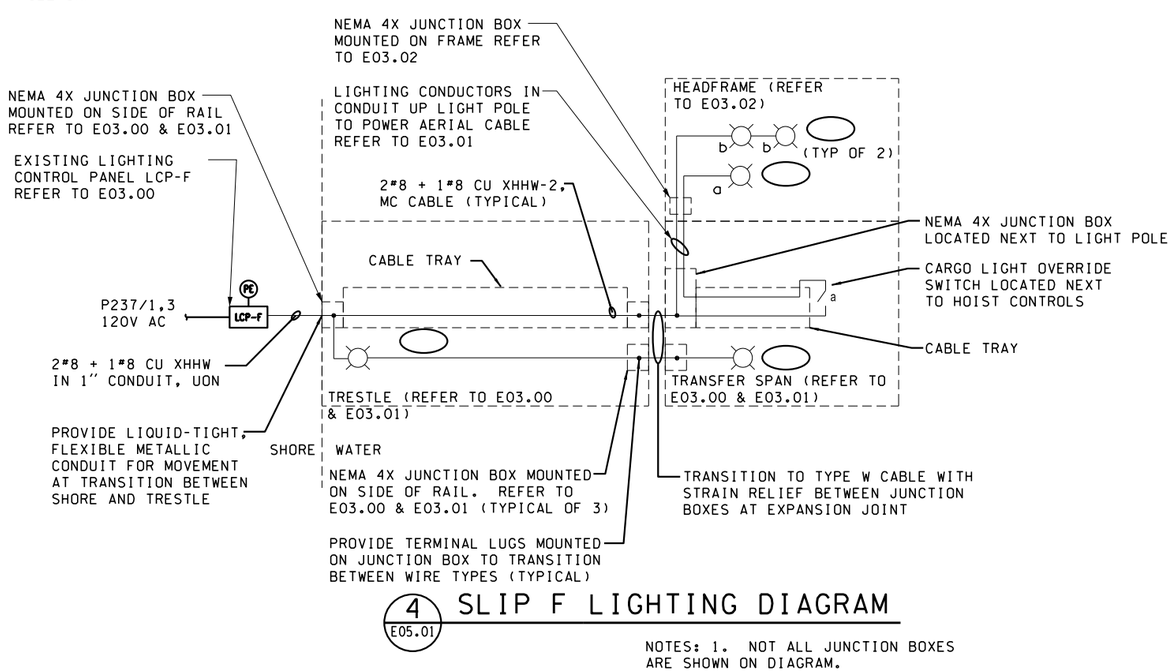
NOTE:
FOR STRUCTURAL INFO, REFER TO DETAILS ON SHEET S08.02

2 E03.01 DETAIL



NOTE:
FOR STRUCTURAL INFO, REFER TO DETAILS ON SHEET S05.05

3 E03.01 SECTION
JUNCTION BOX MOUNTING



4 E05.01 SLIP F LIGHTING DIAGRAM

NOTES: 1. NOT ALL JUNCTION BOXES ARE SHOWN ON DIAGRAM.

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ENTERED BY: J. PEREZ	1/21/2022					JOB NUMBER 17W062
CHECKED BY: J. LEYSATH	1/21/2022					CONTRACT NO. 00****
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DGN ENGR MNGR:						
ASST SECRETARY: A. SCARTON O		REVISION	DATE	BY		

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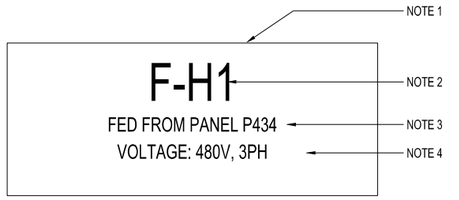
SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

ELECTRICAL DETAILS I

E05.01

SHEET 110 OF 124 SHEETS



NOTES:

1. ENGRAVED PLASTIC: WHITE LETTERS BLACK BACKGROUND.
2. 1/2-INCH HIGH LETTERS, CHANGE NAME AS NECESSARY.
3. 3/16-INCH HIGH LETTERS, CHANGE NAME AS NECESSARY.
4. 3/16-INCH HIGH LETTERS, CHANGE VOLTAGE, PHASE AND CONFIGURATION AS NECESSARY.

1 / E05.02 EQUIPMENT NAMEPLATE

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ENTERED BY: J. PEREZ	1/21/2022					
CHECKED BY: J. LEYSATH	1/21/2022					JOB NUMBER 17W062
MAR PROJ ENGR: T. CASTOR	1/21/2022					
DGN ENGR MNGR:						CONTRACT NO. 00****
ASST SECRETARY: A. SCARTON O		REVISION	DATE	BY		

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EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

ELECTRICAL DETAILS II

E05.02

SHEET 111 OF 124 SHEETS

EQUIPMENT CONNECTION AND WIRING SCHEDULE

EQUIPMENT ID	DESCRIPTION	HP/ KW	VOLTS	PH	PANEL	WIRE AND CONDUIT	DISCONNECT SIZE AMPS	DISCONNECT FUSE AMPS	STARTER NEMA SIZE	STARTER COMB'N YES	STARTER COMB'N NO	REMARKS
F-H1	HOIST	9.0 KW	480	3	P434	3 #10 + 1 #10 G, CU XHHW, 1"C 3 #10 + 1 #10 G, CU XHHW, MC CABLE IN CABLE TRAY 4/C #8 TYPE W AT EXPANSION JOINT	30	*	-	X		NEMA 4X, 316 STAINLESS STEEL PROVIDE NAMEPLATE PER DETAIL 1, E05.02
F-H2	HOIST	9.0 KW	480	3	P434	3 #10 + 1 #10 G, CU XHHW, 1"C 3 #10 + 1 #10 G, CU XHHW, MC CABLE IN CABLE TRAY 4/C #8 TYPE W AT EXPANSION JOINT	30	*	-	X		NEMA 4X, 316 STAINLESS STEEL PROVIDE NAMEPLATE PER DETAIL 1, E05.02
LTG	HEADFRAME & CARGO LIGHT	0.18 KVA	120	1	P237	2 #8 + 1 #8 G, CU XHHW, 1"C 2 #8 + 1 #8 G, CU XHHW, MC CABLE IN CABLE TRAY 3/C #8 TYPE W AT EXPANSION JOINT	20	-	-	-	-	TOGGLE SWITCH WITH WEATHERPROOF COVER VIA LCP-F
REC	RECEPTACLE	0.18 KVA	120	1	P237	2 #8 + 1 #8 G, CU XHHW, 1"C 2 #8 + 1 #8 G, CU XHHW, MC CABLE IN CABLE TRAY 3/C #8 TYPE W AT EXPANSION JOINT	-	-	-	-	-	PROVIDE WITH WEATHERPROOF COVER

* SIZE FUSES PER MANUFACTURER'S RECOMMENDATION

LIGHTING LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	MODEL	LAMPS	WATTS	LUMENS	MOUNTING	VOLTAGE	REMARKS
SL1	SINGLE AREA LIGHT ON 15' HIGH ALUMINUM POLE - ON TOP OF A 3.5" BASE	MCGRAW-EDISON: GLEON-AF-02-LED-E1-SL2-BK-8030-HSS	LED 3000K	300	8000	POLE	120/277V	PROVIDE WITH BIRD SPIKES
CL1	CARGO LIGHT AT BOTTOM OF HEADFRAME BEAM	FAIL SAFE FA1 FA1-B02-LED-E1-5MQ-BK-316SS	LED 3000K	51	4700	SURFACE	120/277	
RL1	RANGE LIGHT ON TOP OF HEADFRAM BEAM	B&B ELECTROMATIC MODEL NO. MS53-PM-JB-RT-B-R360	LED RED	15	-	SURFACE	120V	PROVIDE WITH BIRD SPIKES

NOTE:

PANEL NAME: SB420 (EXISTING) — PANEL SCHEDULE — MFGR: SQUARE D
LOCATION: TRESTLE — 480 VOLT — SECTION: 1 OF 1 — CAT #
FED FROM: SB400 — 3 PHASE, 3 WIRE SURFACE MOUNT PNL
kAIC SYM — 2000 AMP MAIN CB — 2000 AMP BUS — CU BUS — 100% NEUTRAL

CKT. NO.	CIRCUIT DESCRIPTION	CB AMPS	CB POL	kVA	PH	kVA	CB AMPS	CB POL	CIRCUIT DESCRIPTION	Ckt No.
1	PANEL P421	600/	3	0.00	a	0.00	200/	3	PANEL P436	2
	-	-		0.00	b	0.00			-	
	-	-		0.00	c	0.00	-		-	
3	SB426 VIA TRANSFORMER T426	1200/	3	0.00	a	0.19	225/	3	PANEL P437	4
	-	-		0.00	b	0.10	-		-	
	-	-		0.00	c	0.09	-		-	
5	PANEL P431	450/	3	0.00	a	0.00	600/	3	SPARE	6
	-	-		0.00	b	0.00	-		-	
	-	-		0.00	c	0.00	-		-	
7	PANEL 432 VIA TRANSFORMER T432	1200/	3	6.00	a	0.00	15/	2	PANEL P220 (MINI POWER ZONE UNIT)	8
	-	-		6.00	b	0.00	-		-	
	-	-		6.00	c	0.00	/	1	SPACE	
9	SPACE	/	3	0.00	a	0.00	/	3	SPACE	10
	-	-		0.00	b	0.00	-		-	
	-	-		0.00	c	0.00	-		-	

LOAD SUM	CONN LOAD		FACTOR	CALC LOAD	
LIGHTING	0.20	kVA	125%	0.25	kVA
RECEPTACLES	0.18	kVA	50%>10kVA	0.18	kVA
ALL MOTORS	18.00	kVA	100%	18.00	kVA
LRGST MOTOR	0.00	kVA	125%	0.00	kVA
KITCHEN	0.00	kVA	100%	0.00	kVA
MISCELLANEOUS	0.00	kVA	100%	0.00	kVA
NON-COINCIDENT	0.00	kVA	0%	0.00	kVA
EXIST METERED	544.80	kVA	125%	681.00	kVA
TOTAL	563.18	**kVA**		699.43	**kVA**
	677.4	**AMPS**		841.3	**AMPS**

NOTES
UTILITY METER INSTALLED FOR SWITCHBOARD
1. EXISTING SCHEDULE FOR REFERENCE ONLY.

*INCLUDES NEC 220.87 ADJ FACTOR 125%, SEASONAL ADJ FACTOR OF 1,
OCC ADJ FACTOR OF 1. PEAK UTILITY OF 544.8kVA ON
SEPT 2020. UTILITY DURING METERING OF 544.8kVA. Note:

PANEL NAME: P432 (EXISTING) — PANEL SCHEDULE — MFGR: SQUARE D
LOCATION: TRESTLE — 480 VOLT — SECTION: 1 OF 1 — CAT #
FED FROM: SB420 VIA T432 — 3 PHASE, 3 WIRE SURFACE MOUNT PNL
kAIC SYM — 1200 AMP MAIN CB — 1200 AMP BUS — CU BUS — 100% NEUTRAL

CKT. NO.	CIRCUIT DESCRIPTION	CB AMPS	CB POL	kVA	PH	kVA	CB AMPS	CB POL	CIRCUIT DESCRIPTION	Ckt No.
1	PANEL 434	300/	3	6.00	a	0.00	/	3	SPACE	2
	-	-		6.00	b	0.00	-		-	
	-	-		6.00	c	0.00	-		-	
3	UNKNOWN	/	3	0.00	a	0.00	/	3	UNKNOWN	4
	-	-		0.00	b	0.00	-		-	
	-	-		0.00	c	0.00	-		-	
5	UNKNOWN	/	3	0.00	a	0.00	/	3	UNKNOWN	6
	-	-		0.00	b	0.00	-		-	
	-	-		0.00	c	0.00	-		-	
7	UNKNOWNSHORE POWER P.O. BOAT	/	3	0.00	a	0.00	/	3	UNKNOWN	8
	-	-		0.00	b	0.00	-		-	
	-	-		0.00	c	0.00	-		-	
9	UNKNOWN	/	3	0.00	a	0.00	/	3	UNKNOWN	10
	-	-		0.00	b	0.00	-		-	
	-	-		0.00	c	0.00	-		-	

LOAD SUM	CONN LOAD		FACTOR	CALC LOAD	
LIGHTING	0.00	kVA	125%	0.00	kVA
RECEPTACLES	0.00	kVA	50%>10kVA	0.00	kVA
ALL MOTORS	18.00	kVA	100%	18.00	kVA
LRGST MOTOR	0.00	kVA	125%	0.00	kVA
KITCHEN	0.00	kVA	100%	0.00	kVA
MISCELLANEOUS	0.00	kVA	100%	0.00	kVA
NON-COINCIDENT	0.00	kVA	0%	0.00	kVA
EXIST METERED	274.94	kVA	158%	433.03	kVA
TOTAL	292.94	**kVA**		451.03	**kVA**
	352.4	**AMPS**		542.5	**AMPS**

NOTES
T432 - 750KVA TRANSFORMER, 480 DELTA: 480V DELTA
1. EXISTING SCHEDULE FOR REFERENCE ONLY.

*INCLUDES NEC 220.87 ADJ FACTOR 125%, SEASONAL ADJ FACTOR OF 1.26,
OCC ADJ FACTOR OF 1. PEAK UTILITY OF 544.8kVA ON
SEPT 2020. UTILITY DURING METERING OF 433.2kVA. Note:

FILE NAME: PW: WSF/Eagle Harbor/17w062SlipFtoDriveOn/PE/PE_PD/CAD/_Contract_Plans/100%\17w062e06_01.div					
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SUBMITTAL DATE: 1/11/22	morin				*-WA-***
DESIGNED BY:	1/21/2022				REGION NO. STATE
ENTERED BY:	1/21/2022				10 WASH
CHECKED BY:	1/21/2022				JOB NUMBER
MAR PROJ ENGR: T. CASTOR	1/21/2022				17W062
DGN ENGR MNGR:					CONTRACT NO.
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY	00****

PRADEEP P. LEKKALA — STATE OF WASHINGTON — 39959 — REGISTERED PROFESSIONAL ENGINEER

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WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

ELECTRICAL SCHEDULES I

E06.01

SHEET 112 OF 124 SHEETS

PANEL NAME: P434 (EXISTING) — PANEL SCHEDULE — MFGR: SQUARE D
LOCATION: TRESTLE — 480 VOLT — SECTION: 1 OF 1 — CAT # 12159445680170001
FED FROM: P432 — 3 PHASE, 3 WIRE SURFACE MOUNT PNL
kAIC SYM — 300 AMP MAIN CB — 300 AMP BUS — CU BUS — 100% NEUTRAL

CKT. NO.	CIRCUIT DESCRIPTION	CB AMPS	CB POL	kVA	P H	kVA	CB AMPS	CB POL	CIRCUIT DESCRIPTION	Ckt No.
1	**F-H1, HOIST (NEW) (NOTE 1)**	**30/**	**3**	**3.00**	a	0,00	/	3	SPACE	2
	-	-		**3.00**	b	0,00	-		-	
	-	-		**3.00**	c	0,00	-		-	
3	**F-H2, HOIST (NEW) (NOTE 1)**	**30/**	**3**	**3.00**	a	0,00	/	3	SPACE	4
	-	-		**3.00**	b	0,00	-			
	-	-		**3.00**	c	0,00	-			
5	UNKNOWN	15/	3	0.00	a	0,00	100/	3	REC - SHORE POWER TRILER XFMR	6
	-	-		0.00	b	0,00	-			
	-	-		0.00	c	0,00	-			
7	REC - SHORE POWER P.O. BOAT	100/	3	0.00	a	0,00	150/	3	REC - SHORE POWER	8
	-	-		0.00	b	0,00	-			
	-	-		0.00	c	0,00	-			
9	MAIN CIRCUIT BREAKER	300/	3	0.00	a	0,00	150/	3	REC - SHORE POWER	10
	-	-		0.00	b	0,00	-		-	
	-	-		0.00	c	0,00	-		-	

LOAD SUM	CONN LOAD		FACTOR	CALC LOAD	
LIGHTING	0,00	kVA	125%	0,00	kVA
RECEPTACLES	0.00	kVA	50%>10kVA	0.00	kVA
ALL MOTORS	18.00	kVA	100%	18.00	kVA
LRGST MOTOR	0.00	kVA	125%	0.00	kVA
KITCHEN	0.00	kVA	100%	0,00	kVA
MISCELLANEOUS	0.00	kVA	100%	0.00	kVA
NON-COINCIDENT	0,00	kVA	0%	0,00	kVA
EXIST METERED	43,48	kVA	158%	68,48	kVA
TOTAL	61.48	**kVA**		86.48	**kVA**
	74.0	**AMPS**		104.0	**AMPS**

NOTES
1. PROVIDE NEW CIRCUIT BREAKER FOR NEW LOAD.

*INCLUDES NEC 220.87 ADJ FACTOR 125%, SEASONAL ADJ FACTOR OF 1.26, OCC ADJ FACTOR OF 1. PEAK UTILITY OF 544.8kVA ON SEPT 2020. UTILITY DURING METERING OF 431.4kVA. Note:

PANEL NAME: P437 (EXISTING) — PANEL SCHEDULE — MFGR: SQUARE D
LOCATION: TRESTLE — 480 VOLT — SECTION: 1 OF 1 — CAT # 12159445680180000
FED FROM: SB420 — 3 PHASE, 3 WIRE SURFACE MOUNT PNL
kAIC SYM — 225 AMP MAIN CB — 225 AMP BUS — CU BUS — 100% NEUTRAL

CKT. NO.	CIRCUIT DESCRIPTION	CB AMPS	CB POL	kVA	P H	kVA	CB AMPS	CB POL	CIRCUIT DESCRIPTION	Ckt No.
1	PNL P437-1 GANGWAY HOIST	15/	3	0.00	a	0.00	20/	3	LTG - TRASK PIER	2
	-	-		0.00	b	0.00	-		-	
	-	-		0.00	c	0.00	-		-	
3	REC - SHORE POWER (E)	60/	3	0.00	a	0,52	25/	3	PANEL P237 VIA XFMR T237	4
	-	-		0.00	b	0.00	-			
	-	-		0.00	c	0,52	-			
5	REC - SHORE POWER	100/	3	0.00	a	0.00	60/	3	REC - SHORE POWER (W)	6
	-	-		0.00	b	0.00	-		-	
	-	-		0.00	c	0.00	-		-	

LOAD SUM	CONN LOAD		FACTOR	CALC LOAD	
LIGHTING	0,68	kVA	125%	0,85	kVA
RECEPTACLES	0,36	kVA	50%>10kVA	0,36	kVA
ALL MOTORS	0.00	kVA	100%	0.00	kVA
LRGST MOTOR	0.00	kVA	125%	0.00	kVA
KITCHEN	0.00	kVA	100%	0.00	kVA
MISCELLANEOUS	0.00	kVA	100%	0.00	kVA
NON-COINCIDENT	0.00	kVA	0%	0,00	kVA
EXIST METERED	19,62	kVA	125%	24,53	kVA
TOTAL	20.66	**kVA**		25.74	**kVA**
	24.9	**AMPS**		31.0	**AMPS**

NOTES
1. EXISTING SCHEDULE FOR REFERENCE ONLY.

*INCLUDES NEC 220.87 ADJ FACTOR 125%, SEASONAL ADJ FACTOR OF 1, OCC ADJ FACTOR OF 1. PEAK UTILITY OF 544.8kVA ON SEPT 2020. UTILITY DURING METERING OF 544.8kVA. Note:

PANEL NAME: P237 (EXISTING) — PANEL SCHEDULE — MFGR: SQUARE D
LOCATION: TRESTLE — 208Y/120 VOLT — SECTION: 1 OF 1 — CAT # MPZB15T2FSS
FED FROM: P473-4 VIA T237 — 3 PHASE, 4 WIRE INTEGRATED PNL
kAIC SYM — 40 AMP MAIN CB — 40 AMP BUS — CU BUS — 100% NEUTRAL

CKT. NO.	CIRCUIT DESCRIPTION	CB AMPS	CB POL	kVA	P H	kVA	CB AMPS	CB POL	CIRCUIT DESCRIPTION	Ckt No.
1	LTG - SLIP F CARGO (NOTE 2)	20/	1	0,68	a	0,00	60/	3	SECONDARY MAIN	
3	PHOTOCELL - SLIP F	20/	1	0.00	b	0,00	-		-	
5	UNKNOWN	20/	1	0.00	c	0,00	-		-	
7	UNKNOWN	20/	2	0.00	a	0,00	20/	1	UNKNOWN	2
9	UNKNOWN	-		0.00	b	0,00	20/	1	UNKNOWN	4
11	-	20/	1	0,00	c	0,00	20/	1	UNKNOWN	6
13	**REC - SLIP F HEAD FRAME (NOTE 1)**	**20/**	**1**	**0.36**	a	0,00	20/	1	UNKNOWN	8
15	SPACE			0.20	b	0,00			SPACE	10
17	SPACE			0.00	c	0,00			SPACE	12
19	SPACE			0.00	a	0,00			SPACE	14
21	SPACE			0.00	b	0,00			SPACE	16
23	SPACE			0,00	c	0,00			SPACE	18
25	SPACE			0,00	a	0,00			SPACE	20
27	SPACE			0.00	b	0,00			SPACE	22
29	SPACE			0.00	c	0,00			SPACE	24

LOAD SUM	CONN LOAD		FACTOR	CALC LOAD	
LIGHTING	0,68	kVA	125%	0,85	kVA
RECEPTACLES	0,36	kVA	50%>10kVA	0,36	kVA
ALL MOTORS	0.00	kVA	100%	0.00	kVA
LRGST MOTOR	0.00	kVA	125%	0.00	kVA
KITCHEN	0.00	kVA	100%	0.00	kVA
MISCELLANEOUS	0.00	kVA	100%	0.00	kVA
NON-COINCIDENT	0.00	kVA	0%	0.00	kVA
EXIST METERED	8,50	kVA	125%	10,63	kVA
TOTAL	9,54	**kVA**		11,84	**kVA**
	26.5	**AMPS**		32.9	**AMPS**

NOTES
MINI PWR ZONE, 60HZ, 115DEG C RISE, TYPE 3R
INCOMING 40A MCB @ 480V, 15KVA XMFR
1. **PROVIDE NEW 100MA GROUND FAULT CIRCUIT BREAKER FOR NEW LOAD.**
2. **REVISE LOAD ON EXISTING BREAKER.**

*INCLUDES NEC 220.87 ADJ FACTOR 125%, SEASONAL ADJ FACTOR OF 1, OCC ADJ FACTOR OF 1. PEAK UTILITY OF 544.8kVA ON SEPT 2020. UTILITY DURING METERING OF 544.8kVA. Note:

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JOB NUMBER 17W062
CONTRACT NO. 00****

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Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

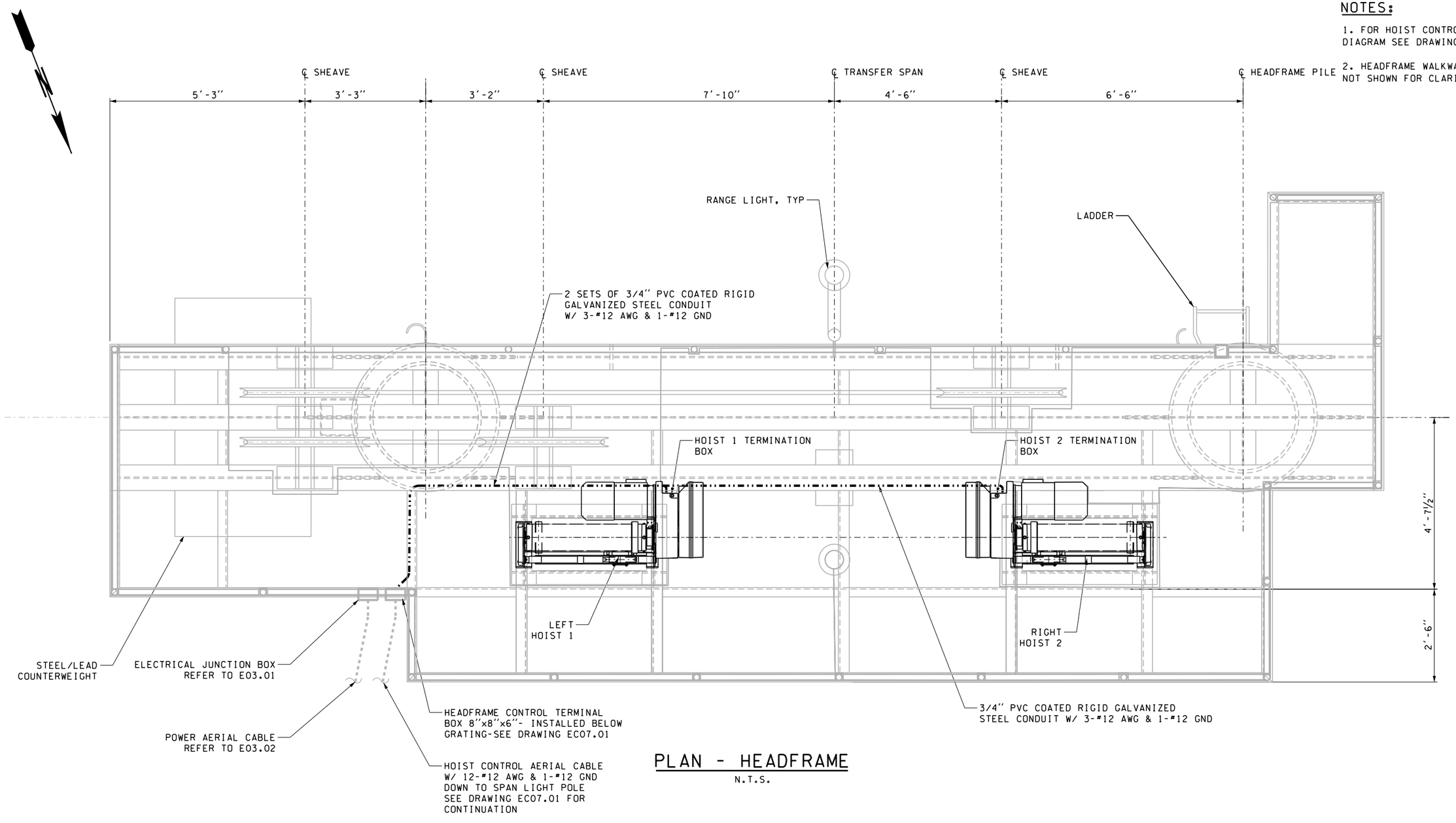
ELECTRICAL SCHEDULES II

E06.02

SHEET 113 OF 124 SHEETS

NOTES:

1. FOR HOIST CONTROL SCHEMATIC DIAGRAM SEE DRAWING EC07.02.
2. HEADFRAME WALKWAY GRATING NOT SHOWN FOR CLARITY.



PLAN - HEADFRAME

N.T.S.

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ENTERED BY: J. PEREZ	1/21/2022					10 WASH
CHECKED BY: A. GONZALEZ	1/21/2022					JOB NUMBER 17W062
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ANTONIO GONZALEZ JR. 21070 STATE OF WASHINGTON REGISTERED PROFESSIONAL ENGINEER

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Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

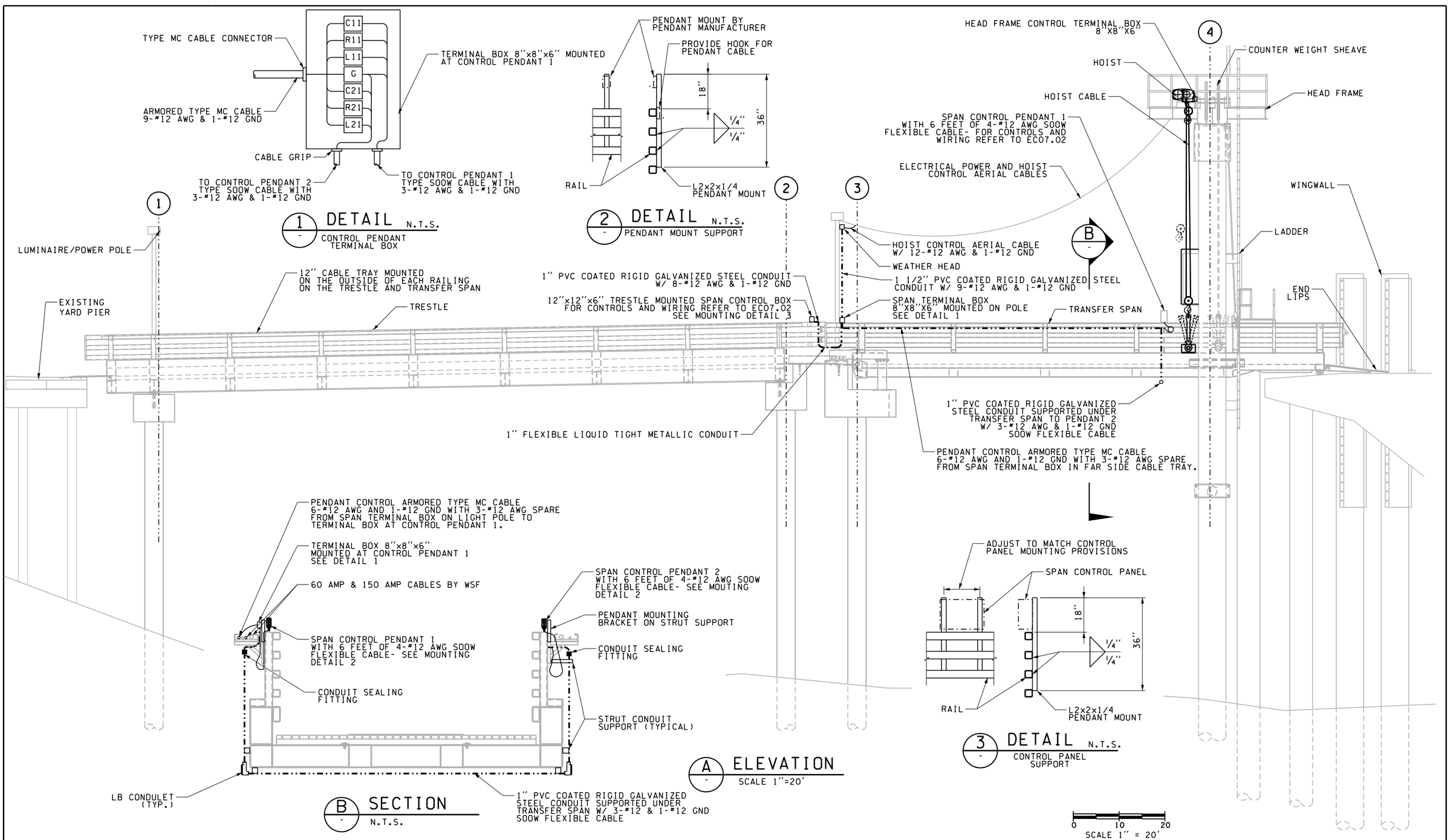
MECHANICAL HOIST ELECTRICAL PLAN

EC07.00

SHEET 114 OF 124 SHEETS

1 DETAIL N.T.S.
CONTROL PENDANT TERMINAL BOX

2 DETAIL N.T.S.
PENDANT MOUNT SUPPORT



B SECTION
N.T.S.

A ELEVATION
SCALE 1"=20'

3 DETAIL N.T.S.
CONTROL PANEL SUPPORT

0 10 20
SCALE 1" = 20'

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CHECKED BY:	1 2				JOB NUMBER
MAR PROJ ENGR: T. CASTOR	1 2				17W062
DGN ENGR MNGR:					CONTRACT NO.
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ANTONIO GONZALEZ JR. STATE OF WASHINGTON 51770 REGISTERED PROFESSIONAL ENGINEER
SEE CT01.00

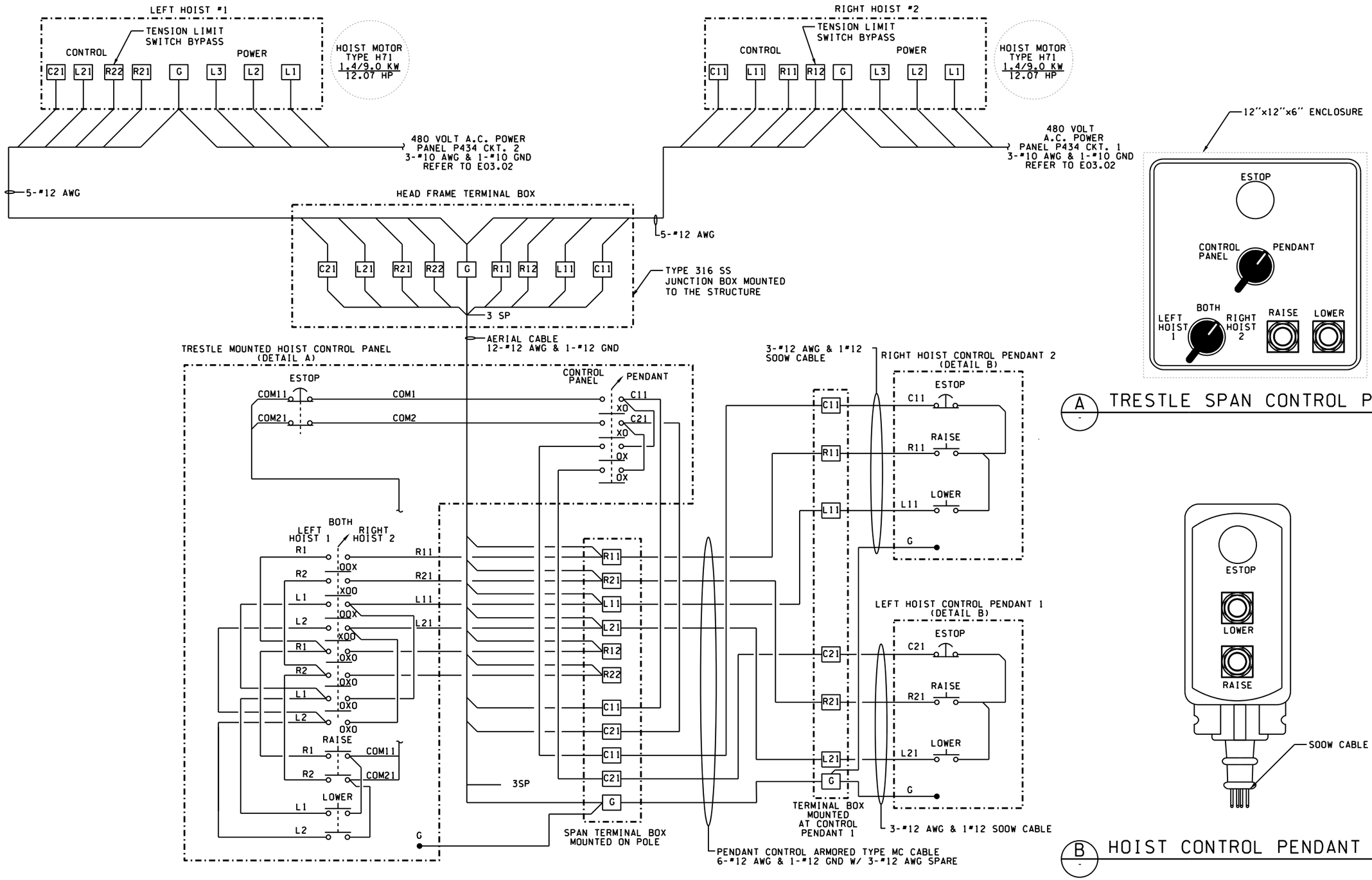
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

TRANSFER SPAN ELECTRICAL ELEV.

EC07.01

SHEET 115 OF 124 SHEETS



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CHECKED BY: A. GONZALEZ	1/21/2022					CONTRACT NO. 00****
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DGN ENGR MNGR:						
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ANTONIO GONZALEZ — STATE OF WASHINGTON — 37770 — REGISTERED PROFESSIONAL ENGINEER
SEE CT01.00

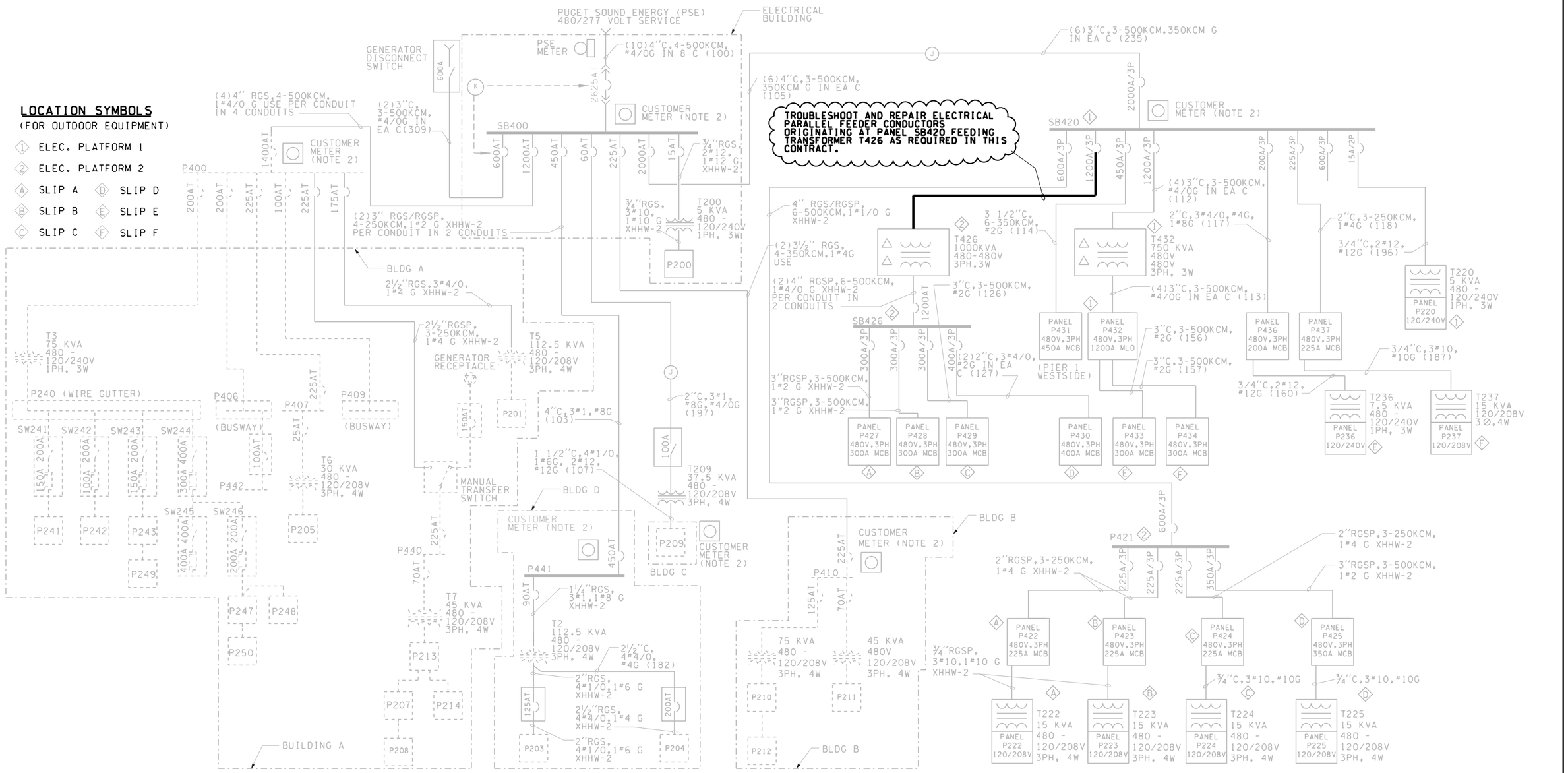
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

HOIST CONTROL SCHEMATIC DIAGRAM

EC07.02

SHEET 116 OF 124 SHEETS



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JAMES MAURICE SIMS, STATE OF WASHINGTON, 24122, REGISTERED PROFESSIONAL ENGINEER

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Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP
SB426 FEEDER REPAIR
ONE-LINE DIAGRAM

EM01.01

SHEET 117 OF 124 SHEETS

CONSTRUCTION NOTES

1. EXISTING CONDUITS ROUTED BELOW THE PIER DECK AND THROUGH THE PILE CAPS.
2. EXISTING CONDUITS EMBEDDED IN CONCRETE ON PIER 1.
3. EXISTING RACEWAY 112 CONSISTS OF TWO 4'' CONDUITS WITH 6-500KCM, 1#4/0G CONDUCTORS IN EACH CONDUIT. ONE B-PHASE CONDUCTOR, IN ONE OF THE CONDUITS, IS SHORTED TO GROUND. THE SHORTED CIRCUIT IS IDENTIFIED AT THE FEEDER BREAKER. DETERMINE WHICH OF THE EXISTING B PHASE CONDUCTORS IS SHORTED AND THE SHORT CIRCUIT LOCATION. TROUBLESHOOT AND DETERMINE WHICH OF THE TWO CONDUIT PATHS, THE SHORTED B PHASE CONDUCTOR IS IN. REMOVE ALL OF THE EXISTING CONDUCTORS FROM THE CONDUIT PATH WITH THE SHORTED CONDUCTOR. REPLACE THE REMOVED CONDUCTORS WITH NEW CONDUCTORS OF THE SAME LENGTH AS THE CONDUCTORS BEING REMOVED. NEW CONDUCTORS SHALL BE IN ACCORDANCE WITH NEC ARTICLE 310 REQUIREMENTS FOR PARALLEL CONDUCTORS.
4. EXISTING ELECTRICAL CABINETS ARE MOUNTED ON ELEVATED PLATFORM. THE ELEVATED PLATFORM PROVIDES A LARGE CABLE VAULT UNDERNEATH THE CABINETS WITH ACCESS LIDS IN FRONT OF THE CABINETS. EXISTING CONDUCTORS ARE ROUTED EXPOSED IN THE VAULT AND HELD IN PLACE AS SHOWN IN DETAIL 1/EM01.05. REMOVE AND REPLACE EXISTING CONDUCTORS PER RACEWAY SCHEDULE AND ATTACH NEW CONDUCTORS IN VAULT AS SHOWN IN DETAIL 1/EM01.05.
5. INSULATION RESISTANCE (MEGGAR) TEST ALL EXISTING PARALLEL FEEDER CONDUCTORS BETWEEN PANEL SB420 AND TRANSFORMER T426. RECORD MEGGAR TEST READINGS. COMPILE MEGGAR TEST READINGS INTO A REPORT. SUBMIT MEGGAR TESTING REPORT TO THE ENGINEER.
6. EXISTING ELECTRICAL CABINETS ARE MOUNTED ON ELEVATED PLATFORM. THE ELEVATED PLATFORM PROVIDES A LARGE CABLE VAULT UNDERNEATH THE CABINETS WITH ACCESS LIDS IN FRONT OF THE CABINETS.
7. EXISTING FEEDER FROM SB420 TO T426 HAS BEEN MODIFIED FOR REDUCED LOAD. SOME OF THE EXISTING FEEDER CONDUCTORS HAVE BEEN DISCONNECTED.

RACEWAY SCHEDULE

RACEWAY NUMBER	RACEWAY SIZE AND TYPE	CONDUCTOR/CABLE SIZE AND TYPE	FROM	TO	DESCRIPTION AND NOTES
111	EX. 4" RGS/RGSP	EX. 6-500KCM, 1-#1/0G XHHW-2	EX. SWITCHBOARD SB420	EX. PANEL P421	EX. PANEL FEEDER P421 (EX. CKT. SB420-1)
112	EX. 4" RGS/RGSP	6-500KCM, 1-#4/0G XHHW-2	EX. SWITCHBOARD SB420	EX. TRANSFORMER T426	TRANSFORMER T426 FEEDER (CKT. SB420-2) IN 4" CONDUIT THAT CONTAINS SHORTED CONDUCTOR, REMOVE AND REPLACE ALL CONDUCTORS IN THIS CONDUIT FROM SB420 TO T426. REPLACE CONDUCTORS IN COMPLIANCE WITH PARRLLEL CONDUCTOR REQUIREMENTS IN NEC ARTICLE 310
	EX. 4" RGS/RGSP	EX. 6-500KCM, 1-#4/0G XHHW-2	EX. SWITCHBOARD SB420	EX. TRANSFORMER T426	EX. TRANSFORMER T426 FEEDER (EX. CKT. SB420-2) AFTER PARALLEL CIRCUIT IS REPAIRED, RECONNECT DISCONNECTED CONDUCTORS IN SB420 AND T426, IN COMPLIANCE WITH PARRLLEL CONDUCTOR REQUIREMENTS IN NEC ARTICLE 310
113	EX. 4" RGSP	6-500KCM, 1-#4/0G XHHW-2	EX. TRANSFORMER T426	EX. SWITCHBOARD SB426	EX. SWITCHBOARD PARALLEL FEEDER SB426 (EX. CKT. SB420-2)
	EX. 4" RGSP	6-500KCM, 1-#4/0G XHHW-2			
114	EX. 3.5" RGSP	EX. 6-350KCM, 1-#2G XHHW-2	EX. SWITCHBOARD SB420	EX. PANEL P431	EX. PANEL FEEDER P431 (EX. CKT. SB420-3)
197	EX. 2" RGSP	EX. 3-#1, 1-#8G XHHW-2 & EX. 1-#4/0G	EX. JB6	EX. TRANSFORMER T209	EX. TRANSFORMER T209 FEEDER (EX. CKT. SB400-3) & EX. GROUNDING ELECTRODE CONDUCTOR T209
235	EX. 3" RGSP	EX 3-500KCM, 1-350KCMG XHHW-2	EX. JB6	EX. SWITCHBOARD SB420	EX. SWITCHBOARD PARALLEL FEEDER SB420 (EX. CKT. SB400-5)
	EX. 3" RGSP	EX 3-500KCM, 1-350KCMG XHHW-2			
	EX. 3" RGSP	EX 3-500KCM, 1-350KCMG XHHW-2			
	EX. 3" RGSP	EX 3-500KCM, 1-350KCMG XHHW-2			
	EX. 3" RGSP	EX 3-500KCM, 1-350KCMG XHHW-2			
	EX. 3" RGSP	EX 3-500KCM, 1-350KCMG XHHW-2			
	EX. 3" RGSP	EX 3-500KCM, 1-350KCMG XHHW-2			
304	EX. 4" RGS	EX. PULL STRING	EX. JB7	EX. PANEL P421	EX. SPARE CONDUIT
305	EX. 4" RGS	EX. PULL STRING	EX. JB7	EX. TRANSFORMER T426	EX. SPARE CONDUIT
320	EX. 4" RGSP	EX. PULL STRING	EX. ELECTRICAL PLATFORM 1	EX. JB8	EX. SPARE CONDUIT

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JAMES MAURICE STARK — STATE OF WASHINGTON — 34322 — REGISTERED PROFESSIONAL ENGINEER

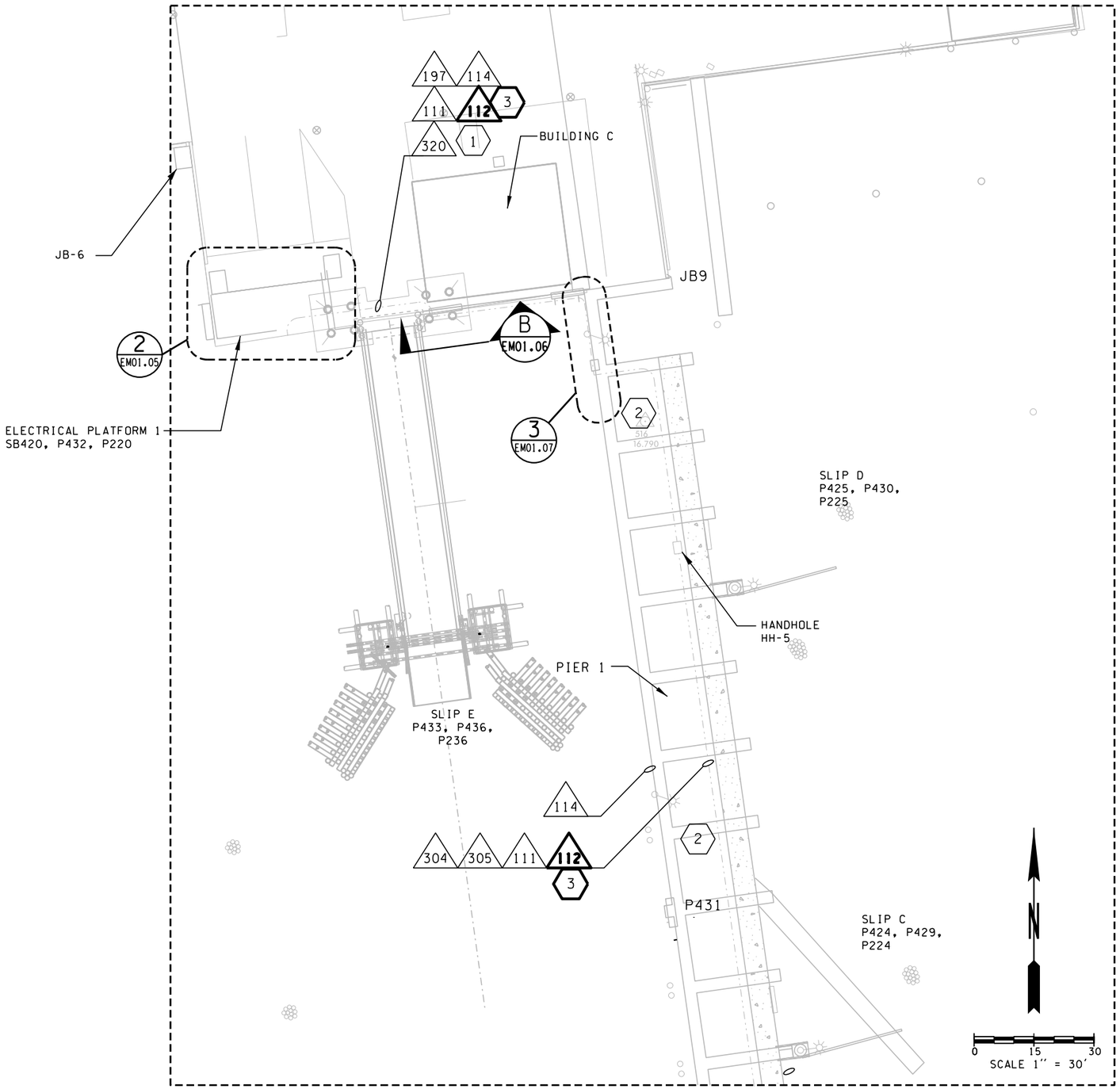
SEE CT01.00

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP
SB426 FEEDER REPAIR, RACEWAY SCHEDULE AND CONSTRUCTION NOTES

EM01.02

SHEET 118 OF 124 SHEETS



GENERAL NOTES:

1. SEE SHEET EM01.02 FOR CONSTRUCTION NOTES AND RACEWAY SCHEDULE.
2. SEE SHEET E01.00 FOR LEGEND AND ABBREVIATIONS.

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ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062	
CHECKED BY: K. BROCK	1/18/2022					CONTRACT NO. 00****	
MAR PROJ ENGR: T. CASTOR	1/18/2022						
DGN ENGR MNGR:							
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY			

JAMES MAURICE SHAW, STATE OF WASHINGTON, 34322, REGISTERED PROFESSIONAL ENGINEER

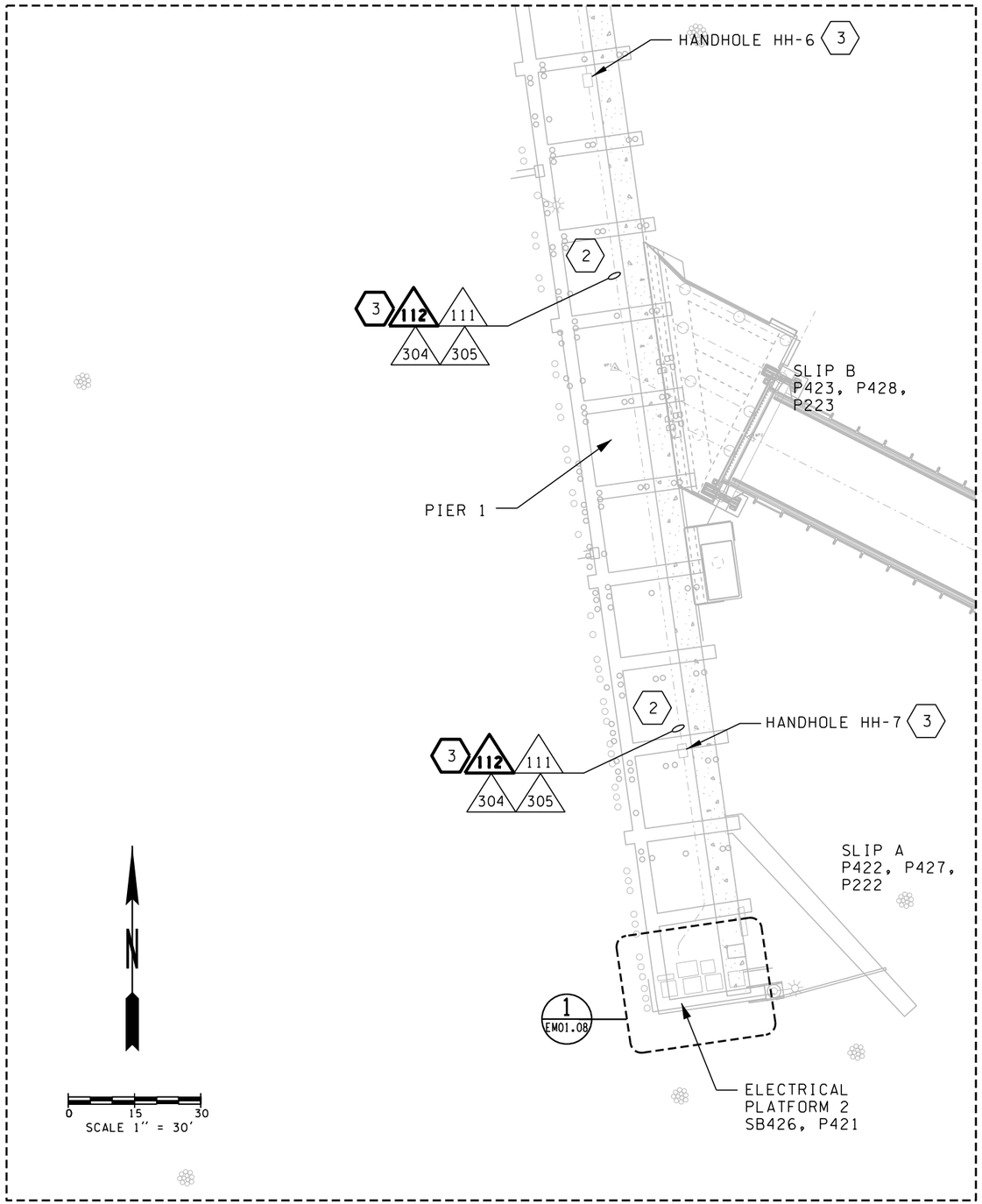
SEE CT01.00

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP
SB426 FEEDER REPAIR
SITE PLAN DETAIL 1

EM01.03

SHEET 119 OF 124 SHEETS



GENERAL NOTES:

1. SEE SHEET EM01.02 FOR CONSTRUCTION NOTES AND RACEWAY SCHEDULE.
2. SEE SHEET E01.00 FOR LEGEND AND ABBREVIATIONS.

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DESIGNED BY: J. SIMS	1/18/2022					REGION NO. 10	STATE WASH
ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062	
CHECKED BY: K. BROCK	1/18/2022					CONTRACT NO. 00****	
MAR PROJ ENGR: T. CASTOR	1/18/2022						
DGN ENGR MNGR:							
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY			

JAMES MAURICE SIMS — STATE OF WASHINGTON — 34325 — REGISTERED PROFESSIONAL ENGINEER

SEE CT01.00

Washington State Department of Transportation
WASHINGTON STATE FERRIES

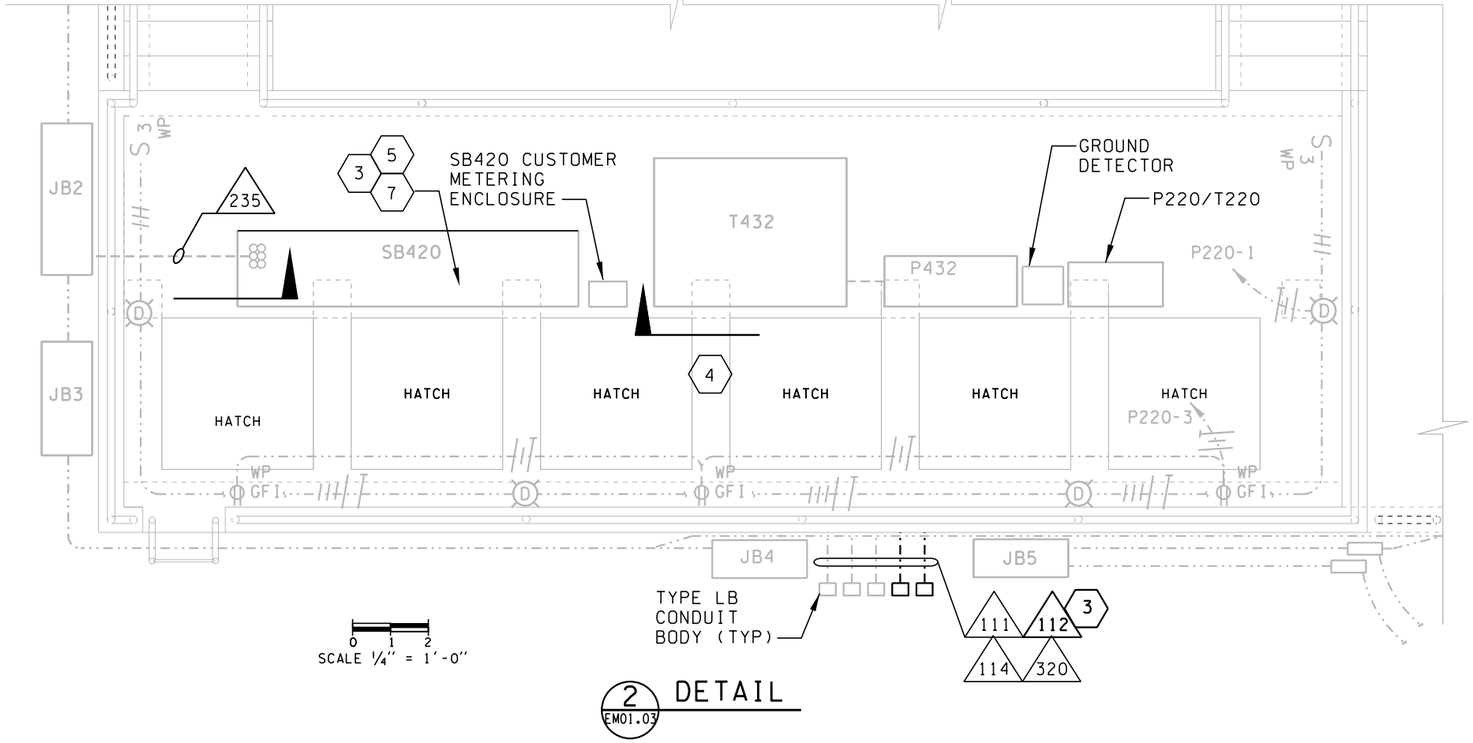
SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP
SB426 FEEDER REPAIR
SITE PLAN DETAIL 2

EM01.04

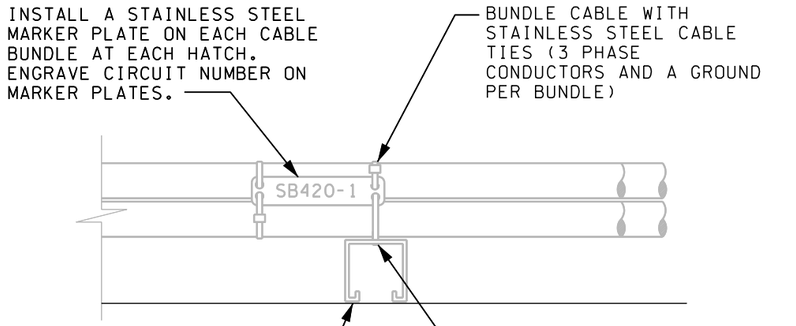
SHEET 120 OF 124 SHEETS

GENERAL NOTES:

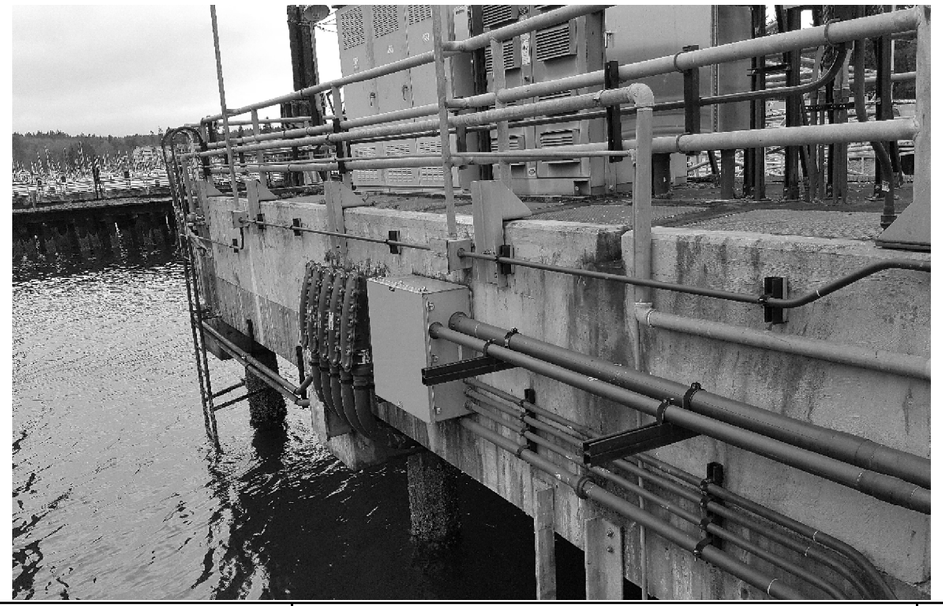
1. SEE SHEET EM01.02 FOR CONSTRUCTION NOTES AND RACEWAY SCHEDULE.
2. SEE SHEET E01.00 FOR LEGEND AND ABBREVIATIONS.



2 EM01.03 DETAIL



1 – DETAIL
N.T.S



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SUBMITTAL DATE: 1/11/22	morin					*-WA-***	
DESIGNED BY: J. SIMS	1/18/2022					REGION NO. 10	STATE WASH
ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062	
CHECKED BY: K. BROCK	1/18/2022					CONTRACT NO. 00****	
MAR PROJ ENGR: T. CASTOR	1/18/2022						
DGN ENGR MNGR:							
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY			

JAMES MAURICE SIMS — STATE OF WASHINGTON — 24322 — REGISTERED PROFESSIONAL ENGINEER

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Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

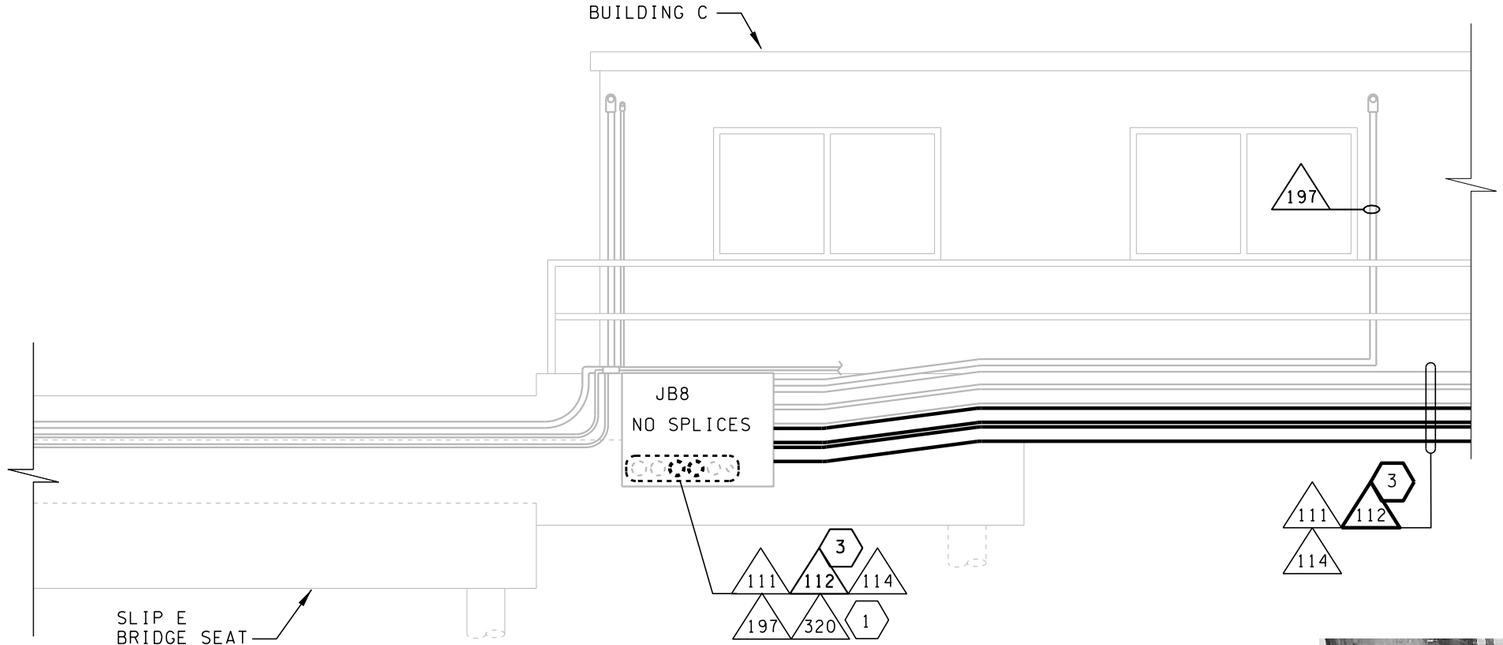
SB426 FEEDER REPAIR DETAILS 1

EM01.05

SHEET 121 OF 124 SHEETS

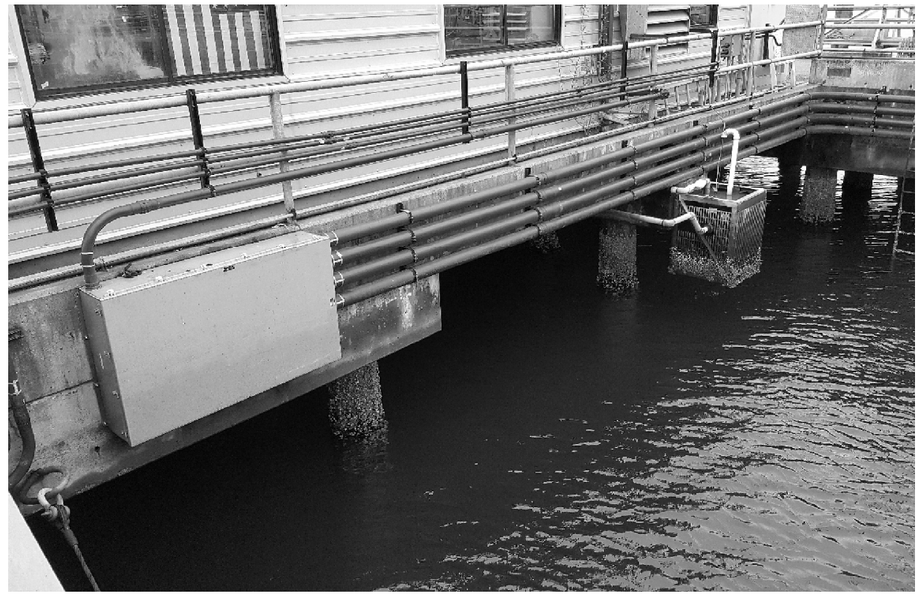
GENERAL NOTES:

1. SEE SHEET EM01.02 FOR CONSTRUCTION NOTES AND RACEWAY SCHEDULE.
2. SEE SHEET E01.00 FOR LEGEND AND ABBREVIATIONS.



B EM01.03 ELEVATION

0 1 2
SCALE 1/4" = 1'-0"



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SUBMITTAL DATE: 1/11/22	morin					*-WA-***
DESIGNED BY: J. SIMS	1/18/2022					REGION NO. 10 / STATE WASH
ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062
CHECKED BY: K. BROCK	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JAMES MAURICE SIMS — STATE OF WASHINGTON — 24222 — REGISTERED PROFESSIONAL ENGINEER

SEE CT01.00

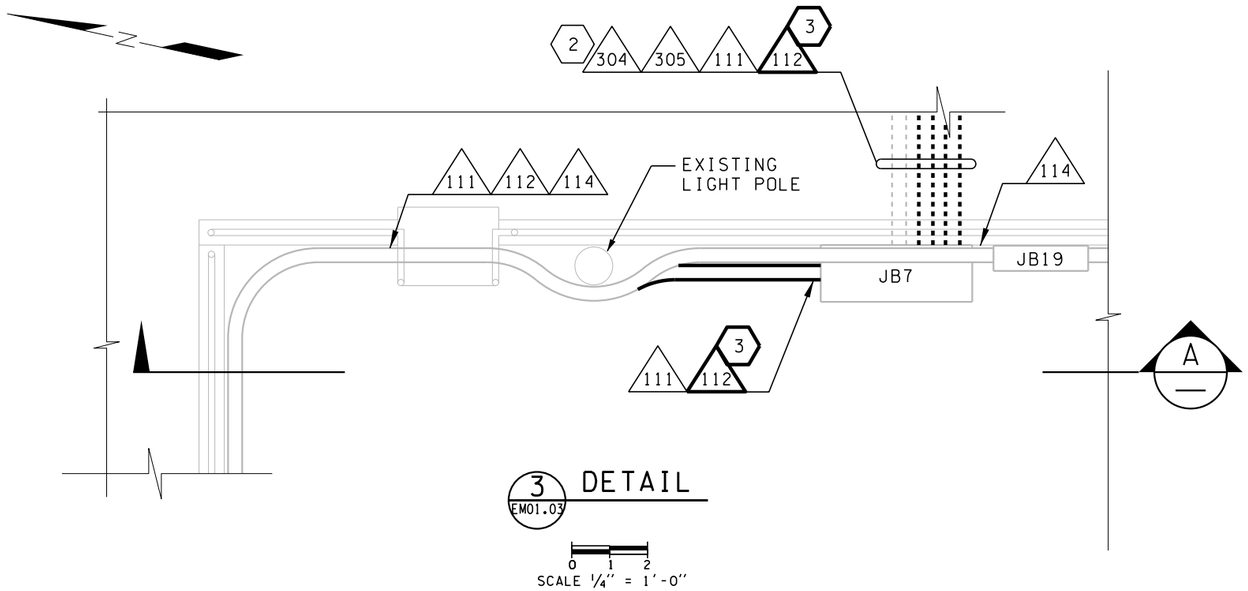
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

SB426 FEEDER REPAIR ELEVATION 1

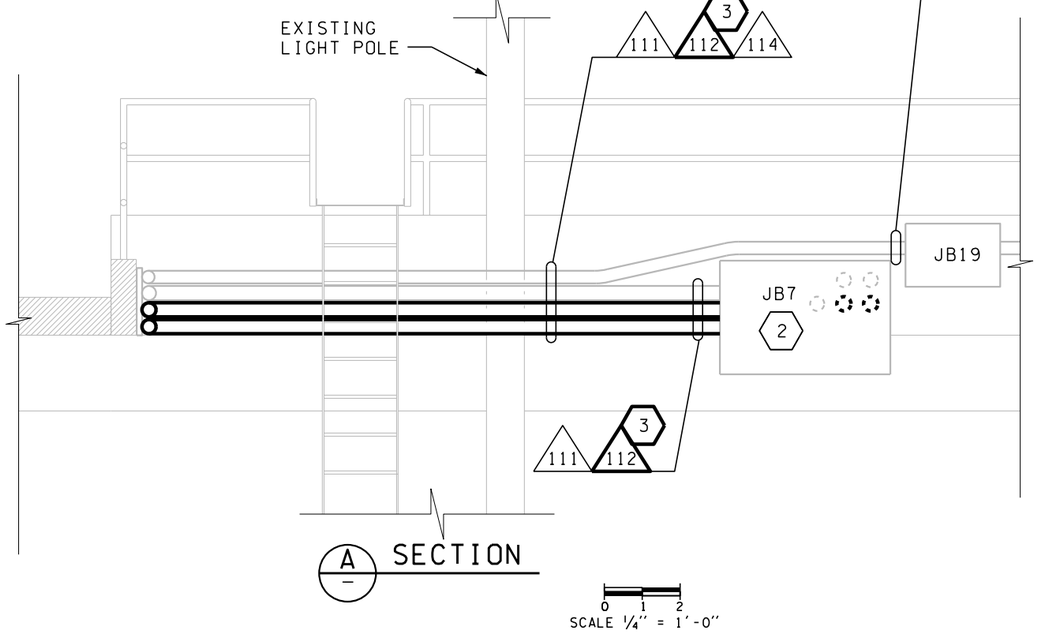
EM01.06

SHEET 122 OF 124 SHEETS



3 DETAIL
EM01.03

0 1 2
SCALE 1/4" = 1'-0"



A SECTION

0 1 2
SCALE 1/4" = 1'-0"

GENERAL NOTES:

1. SEE SHEET EM01.02 FOR CONSTRUCTION NOTES AND RACEWAY SCHEDULE.
2. SEE SHEET E01.00 FOR LEGEND AND ABBREVIATIONS.

FILE NAME: PW: WSF/Eagle Harbor/17w062SlipFtoDriveOn/PE/PE_PD/CAD/_Contract_Plans/100%/17w062em01_07 Elevation 2.dlv						
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SUBMITTAL DATE: 1/11/22	morin					*-WA-***
DESIGNED BY: J. SIMS	1/18/2022					REGION NO. STATE
ENTERED BY: M. MORIN	1/18/2022					10 WASH
CHECKED BY: K. BROCK	1/18/2022					JOB NUMBER
MAR PROJ ENGR: T. CASTOR	1/18/2022					17W062
DGN ENGR MNGR:						CONTRACT NO.
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		00****

JAMES MAURICE SIMS — STATE OF WASHINGTON — 53222 — REGISTERED PROFESSIONAL ENGINEER

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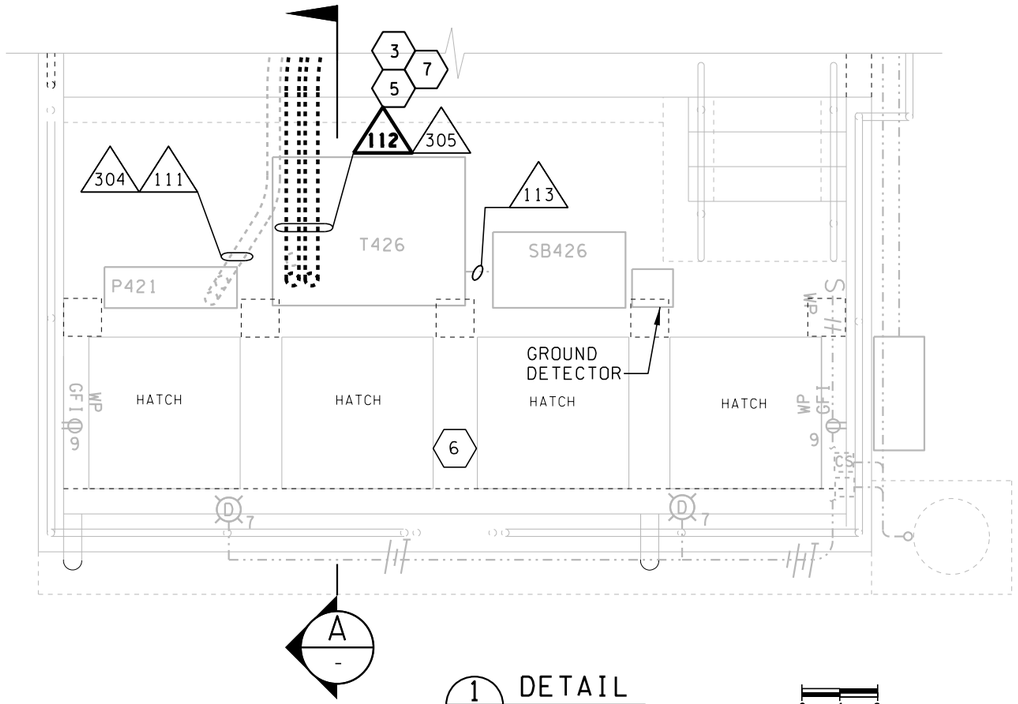
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

SB426 FEEDER REPAIR ELEVATION 2

EM01.07

SHEET 123 OF 124 SHEETS

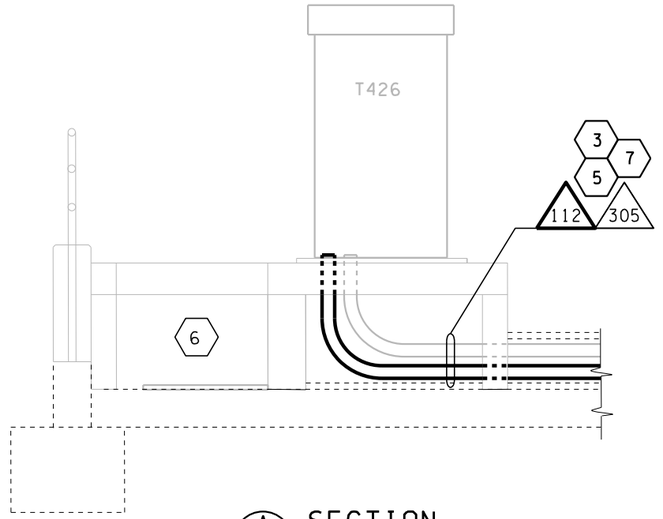


1 EM01.04 DETAIL

SCALE 1/4" = 1'-0"

GENERAL NOTES:

1. SEE SHEET EM01.02 FOR CONSTRUCTION NOTES AND RACEWAY SCHEDULE.
2. SEE SHEET E01.01 FOR LEGEND AND ABBREVIATIONS.



A - SECTION

SCALE 1/4" = 1'-0"

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SUBMITTAL DATE: 1/11/22	morin					*-WA-***
DESIGNED BY: J. SIMS	1/18/2022					REGION NO. 10 / STATE WASH
ENTERED BY: M. MORIN	1/18/2022					JOB NUMBER 17W062
CHECKED BY: K. BROCK	1/18/2022					CONTRACT NO. 00****
MAR PROJ ENGR: T. CASTOR	1/18/2022					
DGN ENGR MNGR:						
ASST SECRETARY: P. RUBSTELLO		REVISION	DATE	BY		

JAMES MAURICE SIMS — STATE OF WASHINGTON — 23222 — REGISTERED PROFESSIONAL ENGINEER

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Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR305
EAGLE HARBOR MAINTENANCE FACILITY
SLIP F DRIVE ON TIE-UP SLIP

SB426 FEEDER REPAIR DETAILS 2

EM01.08

SHEET 124 OF 124 SHEETS